

=> file beilstein

FILE 'BEILSTEIN' ENTERED AT 15:32:13 ON 22 JUN 2005

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FILE RELOADED ON OCTOBER 20, 2002

FILE LAST UPDATED ON APRIL 21, 2005

FILE COVERS 1771 TO 2004.

*** FILE CONTAINS 9,218,366 SUBSTANCES ***

>>>PLEASE NOTE: Reaction Data and substance data are stored in
separate documents and can not be searched together in one query.
Reaction data for BEILSTEIN compounds may be displayed
immediately with the display codes PRE (preparations) and REA
(reactions). A substance answer set retrieved after the search
for a chemical name, a compounds with available reaction
information by combining with PRE/FA, REA/FA or more generally
with RX/FA. The BEILSTEIN Registry Number (BRN) is the link
between a BEILSTEIN compound and belonging reactions. For mo
detailed reaction searches BRNs can be searched as reaction
partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. *
* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE *
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NEW

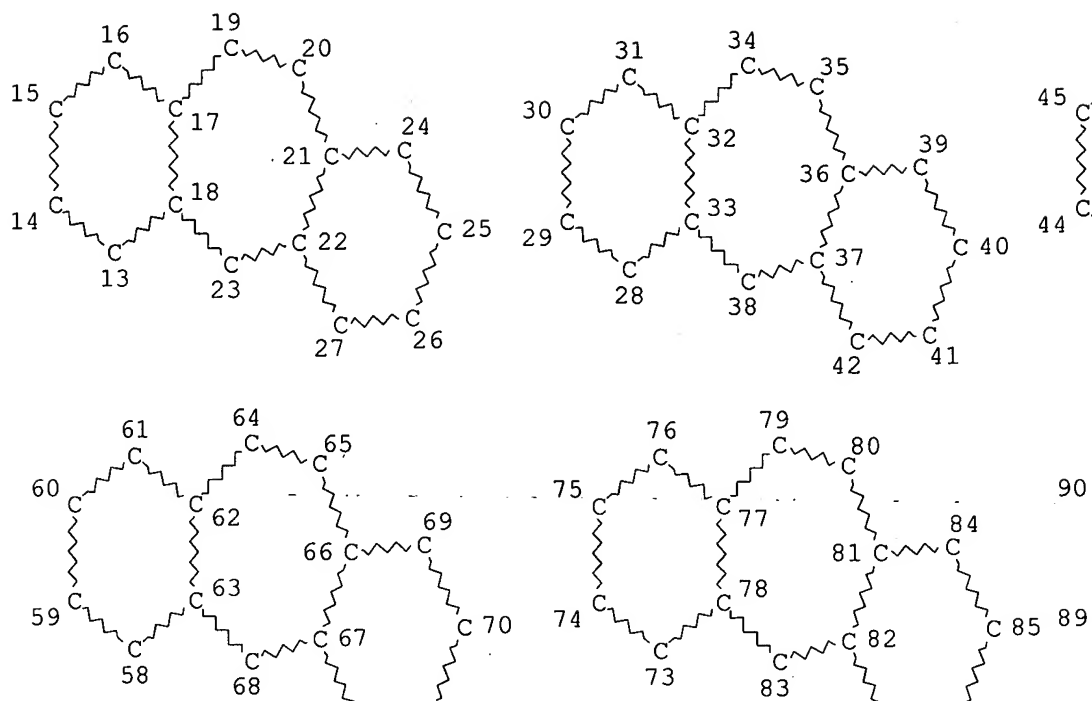
* PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE
SEARCHED, SELECTED AND TRANSFERRED.
* NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES,
ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A
COMPOUND AT A GLANCE.

=> d que L10

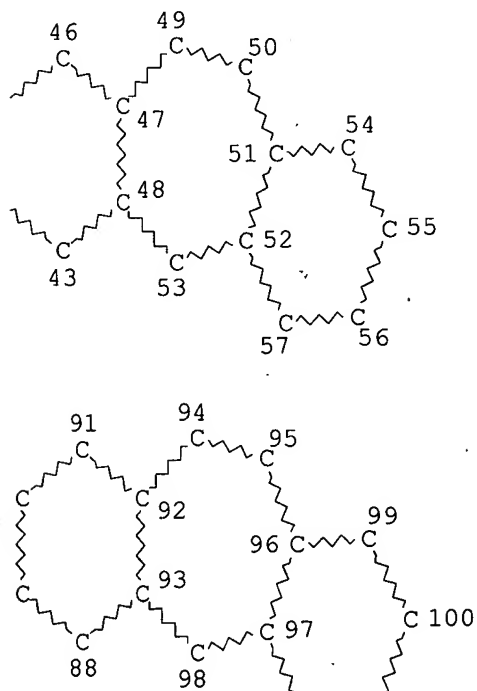
L5 STR

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H 113

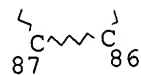
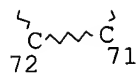


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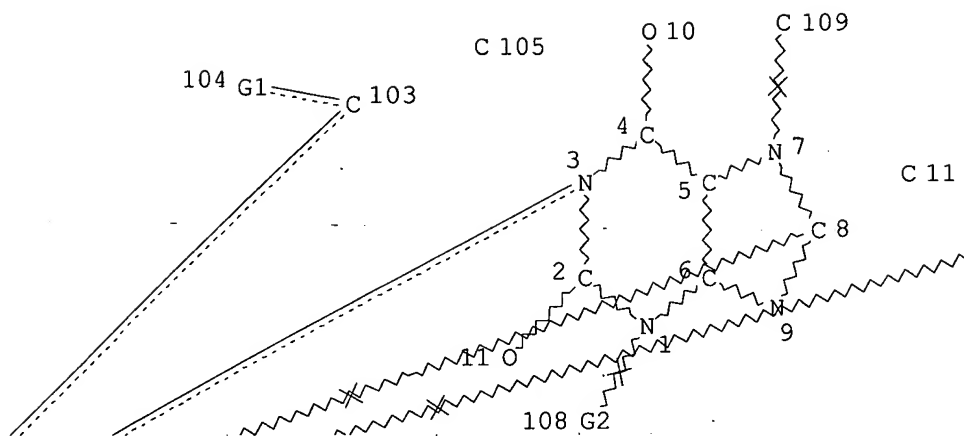


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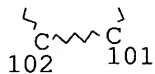
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Page 2-A

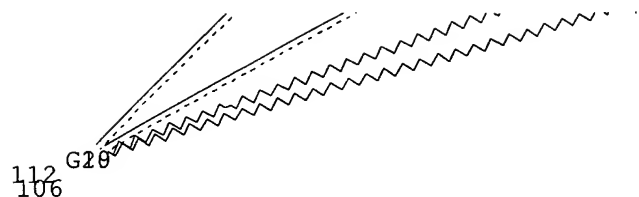


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Page 2-B

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C 107

Page 3-A

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VAR G2=113/107

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REP G20=(0-4) 105-103 105-3

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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 113

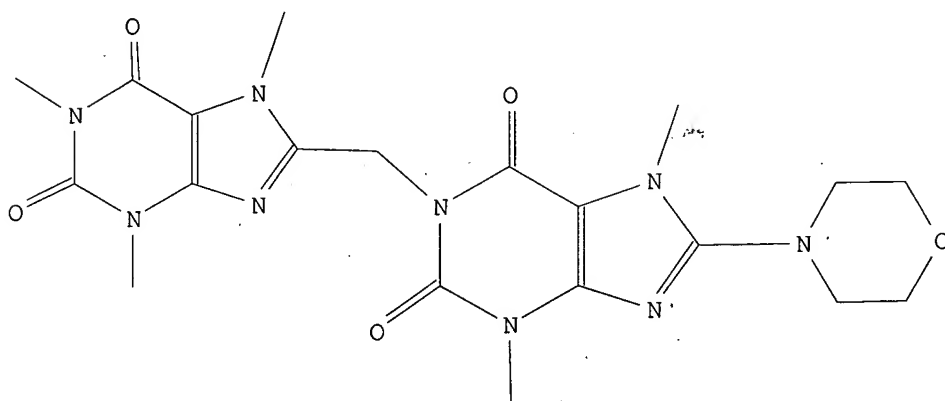
STEREO ATTRIBUTES: NONE
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L10 ANSWER 1 OF 11 BEILSTEIN COPYRIGHT 2005 BEILSTEIN MDL on STN

Beilstein Records (BRN): 1200604
 Beilstein Pref. RN (BPR): 18122-39-9
 CAS Reg. No. (RN): 18122-39-9
 Chemical Name (CN): 3,7,1',3',7'-pentamethyl-8-morpholin-4-yl-
 3,7,3',7'-tetrahydro-1,8'-methanediyl-bis-
 purine-2,6-dione
 Molec. Formula (MF): C20 H25 N9 O5
 Molecular Weight (MW): 471.47
 Lawson Number (LN): 30824, 30743, 30742, 2817
 Compound Type (CTYPE): heterocyclic
 Constitution ID (CONSID): 1209241
 Tautomer ID (TAUTID): 1231144
 Beilstein Citation (BSO): 5-27
 Entry Date (DED): 1988/11/29
 Update Date (DUPD): 1992/06/12



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	4
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
DED	Entry Date	1
DUPD	Update Date	1
MP	Melting Point	1

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This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

All References:

ALLREF

1. Graefe, G. et al., *Arzneim.Forsch.*, CODEN: ARZNAD, 17, <1967>, 1459-1461

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=> file reg

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STRUCTURE FILE UPDATES: 21 JUN 2005 HIGHEST RN 852656-52-1
DICTIONARY FILE UPDATES: 21 JUN 2005 HIGHEST RN 852656-52-1

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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*
* The CA roles and document type information have been removed from *
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*

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=> file caplus

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FILE COVERS 1907 - 22 Jun 2005 VOL 142 ISS 26
FILE LAST UPDATED: 21 Jun 2005 (20050621/ED)

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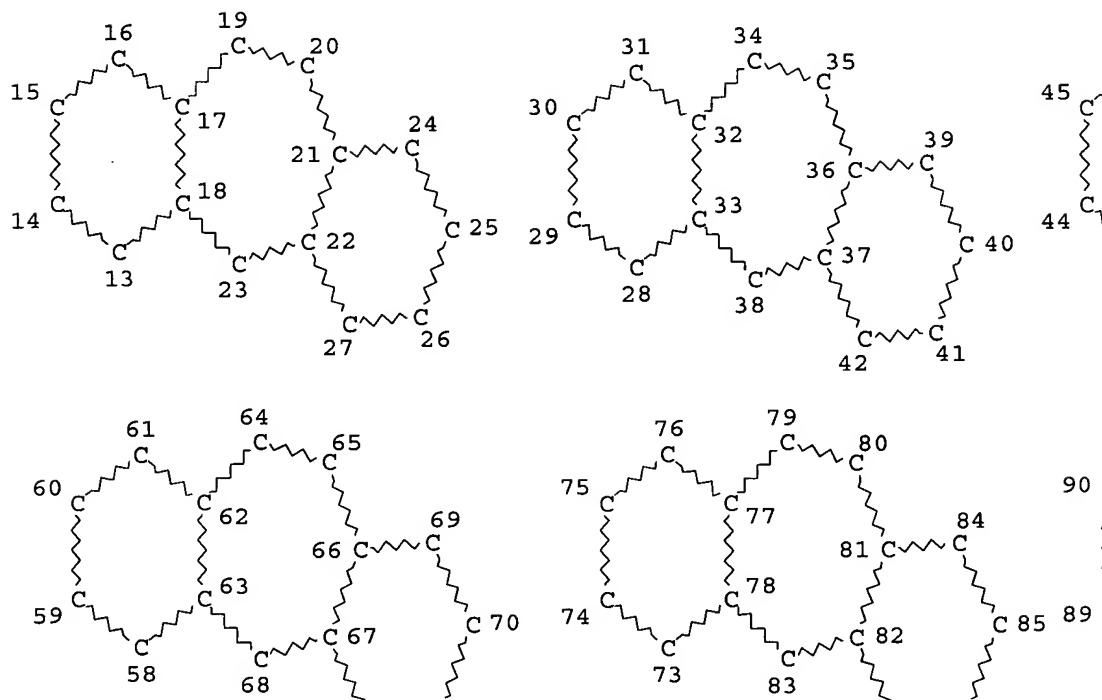
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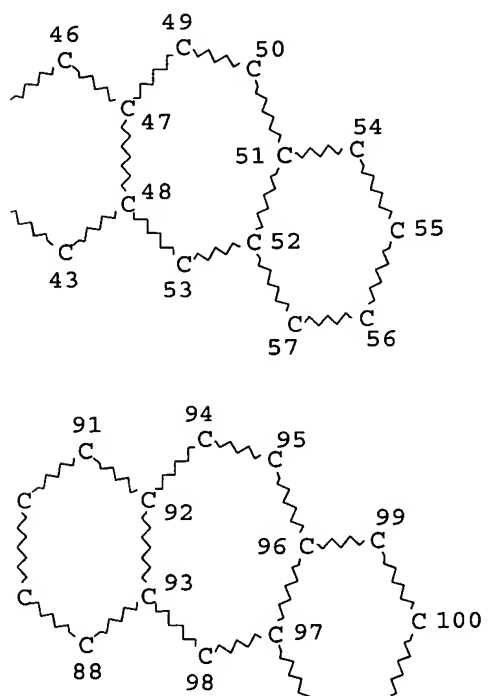
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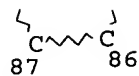
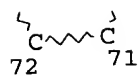
H 113



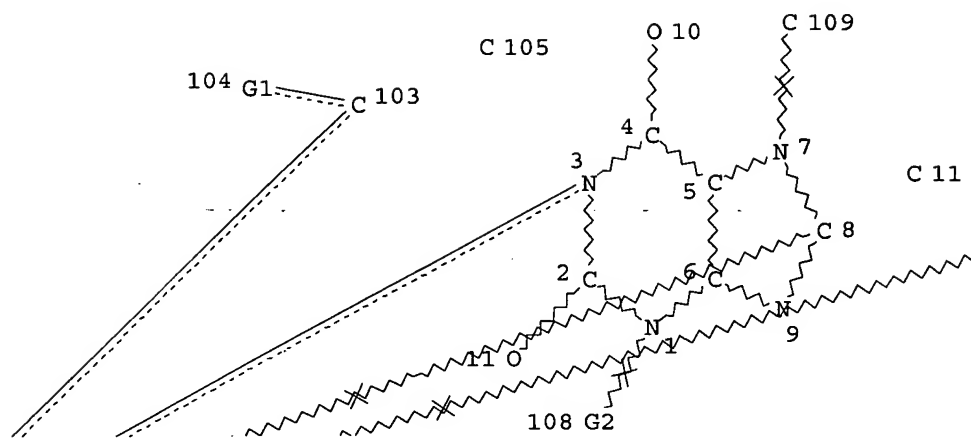
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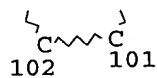
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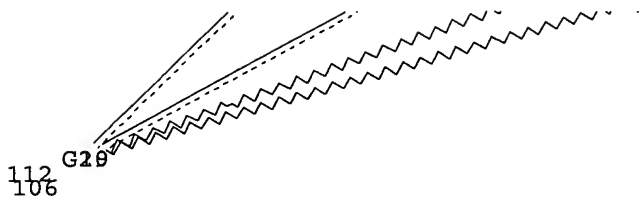
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Page 2-B



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Page 3-A

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VAR G2=113/107

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REP G20=(0-4) 105-103 105-3

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STEREO ATTRIBUTES: NONE
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 L8 9 SEA FILE=CAPLUS ABB=ON PLU=ON L7

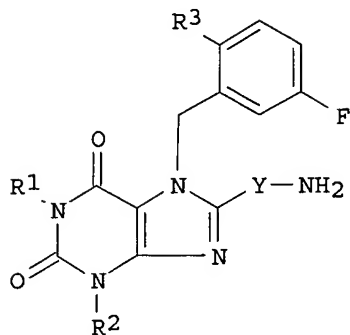
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L8 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:467893 CAPLUS
 DOCUMENT NUMBER: 141:23349
 TITLE: Preparation of xanthine derivatives as dipeptidyl
 peptidase IV inhibitors for the treatment of diabetes
 INVENTOR(S): Nakahira, Hiroyuki; Hochigai, Hitoshi
 PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 149 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004048379	A1	20040610	WO 2003-JP13990	20031031
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			JP 2002-320216	A 20021101
			JP 2002-362953	A 20021213
			JP 2002-364885	A 20021217

JP 2002-367260
JP 2002-381161A 20021218
A 20021227OTHER SOURCE(S):
GI

MARPAT 141:23349



I

AB The title compds. I [R1 = H, (un)substituted alkyl; R2 = H, alkyl, etc.; R3 = Cl, etc.; Y-NH2 = (un)substituted 3-aminopiperidin-1-yl, etc.] are prepared Compds. of this invention in vitro showed IC50 values of 1.8 nM to 914 nM against dipeptidyl peptidase IV.

IT 700381-02-8P

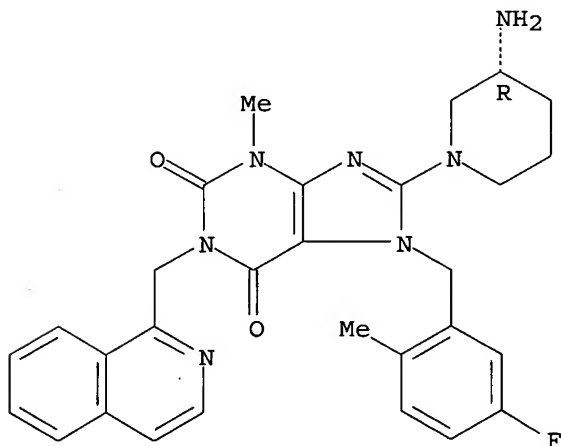
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of xanthine derivs. as dipeptidyl peptidase IV inhibitors)

RN 700381-02-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-[(5-fluoro-2-methylphenyl)methyl]-3,7-dihydro-1-(1-isoquinolinylmethyl)-3-methyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

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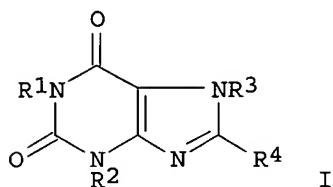
THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:450501 CAPLUS
 DOCUMENT NUMBER: 141:23542
 TITLE: Preparation of xanthine derivatives as
 dipeptidylpeptidase IV inhibitors
 INVENTOR(S): Eckhardt, Matthias; Himmelsbach, Frank; Langkopf,
 Elke; Maier, Roland; Mark, Michael; Tadayyon, Mohammad
 PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma GmbH & Co. Kg, Germany
 SOURCE: Ger. Offen., 31 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004046148	A1	20040603	WO 2003-EP12821	20031111
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US 2004138215	A1	20040715	US 2003-716141	20031118
PRIORITY APPLN. INFO.:			DE 2002-10254304	A 20021121
			US 2002-432450P	P 20021211

GI



AB Title compds. [I; R1 = ABD; A = (substituted) alkyl, etc.; B = EG; E = O, S, etc.; G = (thio)carbonyl, (imino-substituted) Me, etc.; D = propionyl, (fluorinated) alkyl, alkenyl; R2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, etc.; R3 = (substituted) alkyl, aryl, furanyl, thienyl, oxazolyl, isoxazolyl, etc.; R4 = (substituted) azetidin-1-yl, pyrrolidin-1-yl, piperidin-1-yl, etc.], were prepared Thus, 1-[(benzyloxycarbonyl)methyl]-3-methyl-7-(2-butyn-1-yl)-8[(R)-3-(tert-butyloxycarbonylamino)piperidin-1-yl]xanthine (preparation given) in CH₂Cl₂ was shaken with CF₃CO₂H for 20 min at 30° to give 97% 1-[(benzyloxycarbonyl)methyl]-3-methyl-7-(2-butyn-1-yl)-8[(R)-3-aminopiperidin-1-yl]xanthine. The latter inhibited dipeptidylpeptidase IV (DPP IV) with IC₅₀ = 27 nM.

IT 697806-92-1P 697806-93-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

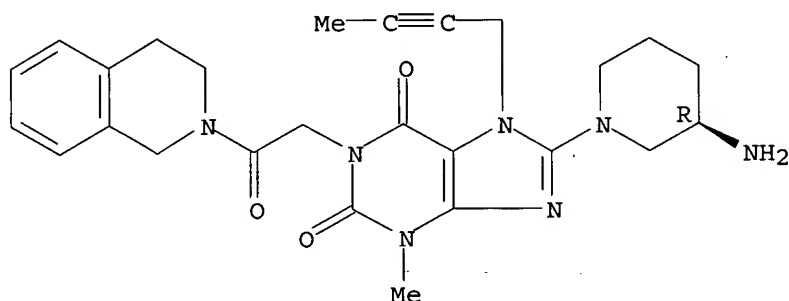
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(preparation of xanthine derivs. as dipeptidylpeptidase IV inhibitors)

RN 697806-92-1 CAPLUS

CN Isoquinoline, 2-[[8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]acetyl]-1,2,3,4-tetrahydro-(9CI) (CA INDEX NAME)

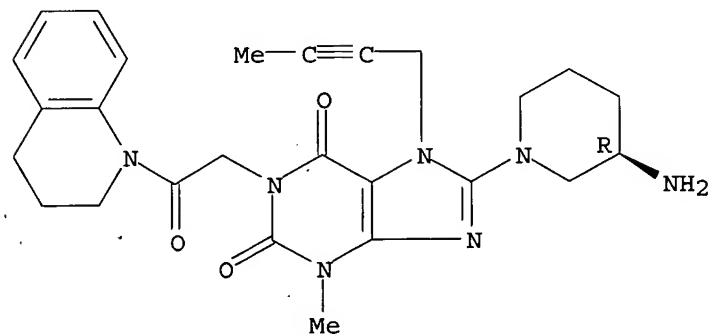
Absolute stereochemistry.



RN 697806-93-2 CAPLUS

CN Quinoline, 1-[[8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]acetyl]-1,2,3,4-tetrahydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 697806-75-0P 697806-76-1P

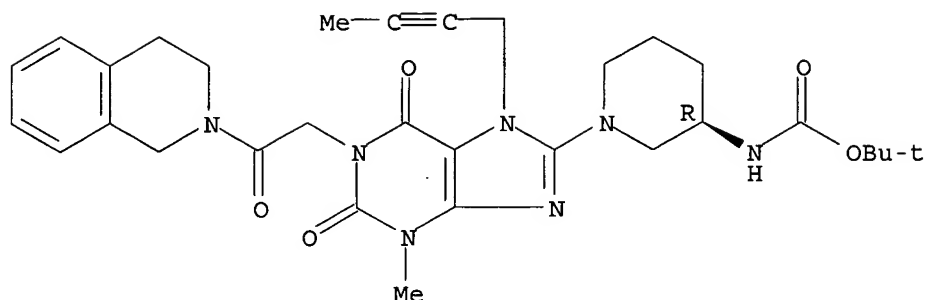
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation of xanthine derivs. as dipeptidylpeptidase IV inhibitors)

RN 697806-75-0 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-1-[2-(3,4-dihydro-2(1H)-isoquinolinyl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

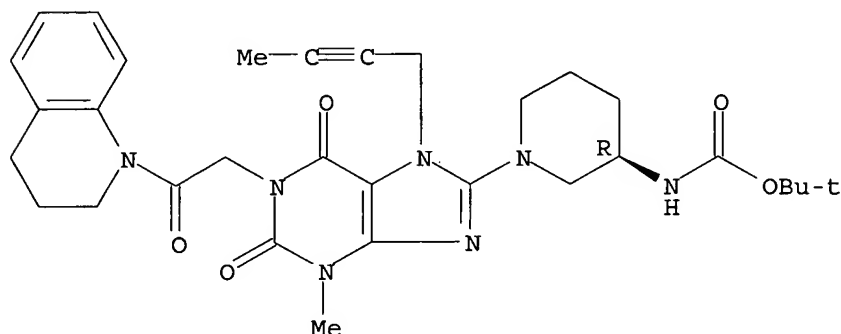
Absolute stereochemistry.



RN 697806-76-1 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-1-[2-(3,4-dihydro-1(2H)-quinolinyl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:408271 CAPLUS

DOCUMENT NUMBER: 140:423521

TITLE: Preparation of xanthines as inhibitors of dipeptidyl peptidase IV (DPP-IV)

INVENTOR(S): Himmelsbach, Frank; Langkopf, Elke; Eckhardt, Matthias; Maier, Roland; Mark, Michael; Tadayyon, Mohammad; Lotz, Ralf

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G., Germany

SOURCE: Ger. Offen., 39 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10251927	A1	20040519	DE 2002-10251927	20021108
US 2004138214	A1	20040715	US 2003-695597	20031028
WO 2004041820	A1	20040521	WO 2003-EP12198	20031103

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,

This case

GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
 LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
 OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
 TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

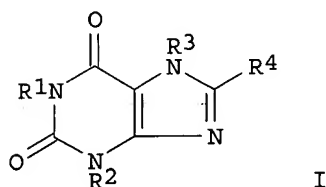
DE 2002-10251927 A 20021108

US 2002-429173P P 20021126

OTHER SOURCE(S):

MARPAT 140:423521

GI



AB Title compds. [I; R1 = (condensed heterocyclyl-substituted) C1-3 alkyl, etc.; R2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, etc.; R3 = (substituted) alkyl, aryl, alkenyl, alkynyl, etc.; R4 = (substituted) azetidin-1-yl, pyrrolidin-1-yl, piperidin-1-yl, hexahydroazepin-1-yl, etc.] and tautomers, stereoisomers, mixts., prodrug, and salts thereof, were prepared. Thus, 1-[(1-methyl-2,2-dioxo-1H-benzo[c][1,2]thiazin-4-yl)methyl]-3-methyl-7-(3-methyl-2-buten-1-yl)-8-[3-(tert-butyloxycarbonylamino)piperidin-1-yl]xanthine (preparation given) in CH₂Cl₂ was treated with isopropanolic HCl followed by stirring for 3 h at room temperature to give 77% 1-[(1-methyl-2,2-dioxo-1H-benzo[c][1,2]thiazin-4-yl)methyl]-3-methyl-7-(3-methyl-2-buten-1-yl)-8-(3-aminopiperidin-1-yl)xanthine. The latter inhibited DPP-IV with IC₅₀ = 13 nM.

IT 668271-72-5P 690996-68-0P 690996-69-1P
 690996-70-4P 690996-71-5P 690996-72-6P
 690996-73-7P 690996-74-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of xanthines as inhibitors of dipeptidyl peptidase IV (DPP-IV))

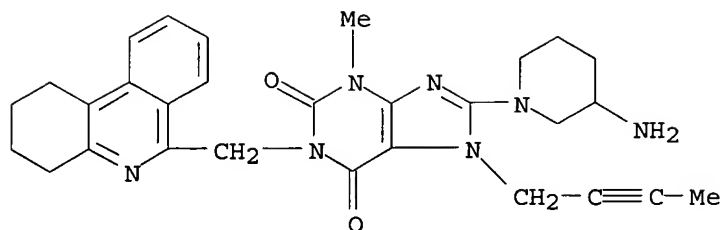
RN 668271-72-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butyryl)-3,7-dihydro-3-methyl-1-[(1,2,3,4-tetrahydro-6-phenanthridinyl)methyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668271-71-4

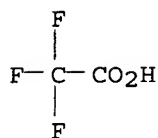
CMF C29 H33 N7 O2



CM 2

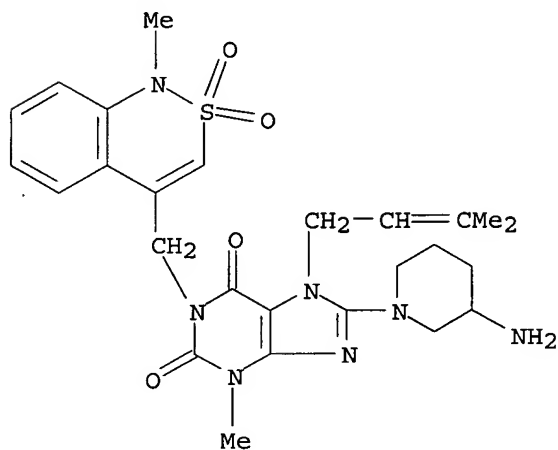
CRN 76-05-1

CMF C2 H F3 O2



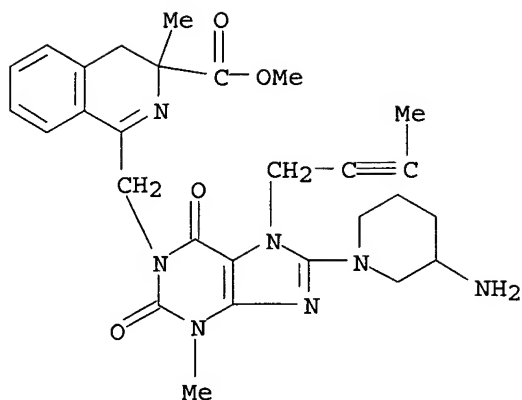
RN 690996-68-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-[(1-methyl-2,2-dioxido-1H-2,1-benzothiazin-4-yl)methyl]- (9CI) (CA INDEX NAME)



RN 690996-69-1 CAPLUS

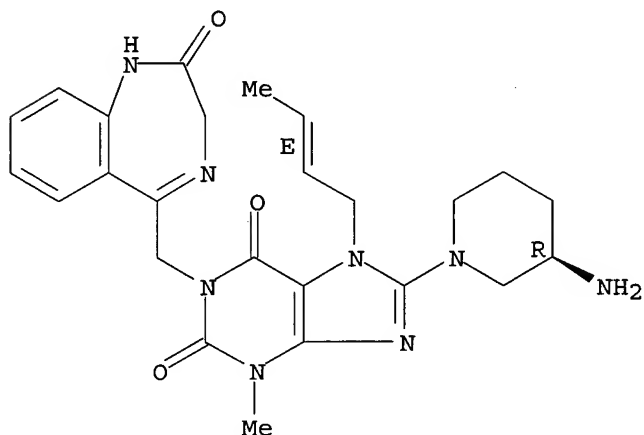
CN 3-Isoquinolinecarboxylic acid, 1-[[8-(3-amino-1-piperidinyl)-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]methyl]-3,4-dihydro-3-methyl-, methyl ester (9CI) (CA INDEX NAME)



RN 690996-70-4 CAPLUS

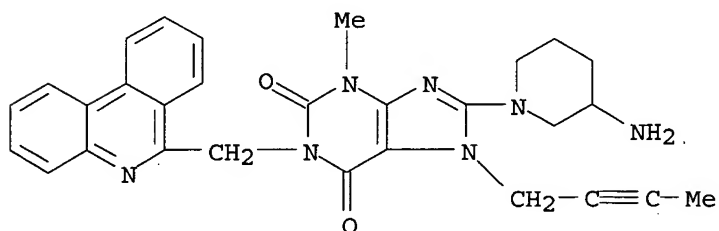
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-1-[(2,3-dihydro-2-oxo-1H-1,4-benzodiazepin-5-yl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 690996-71-5 CAPLUS

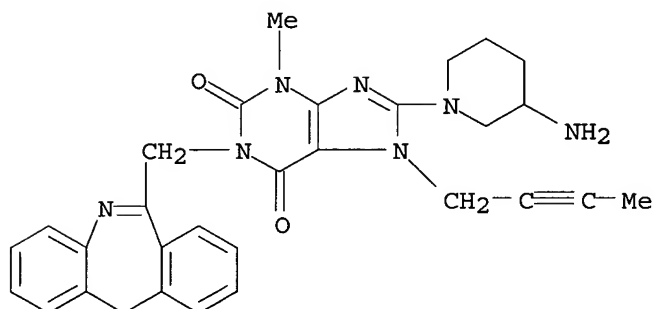
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(6-phenanthridinylmethyl)-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

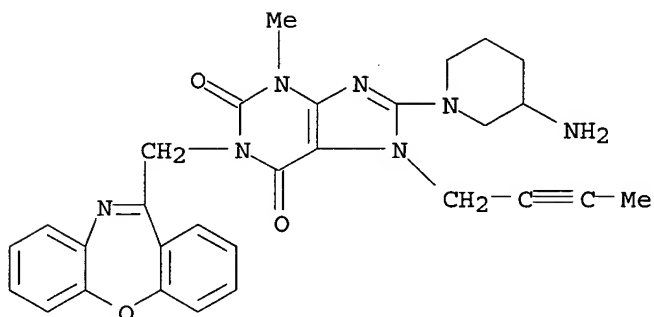
RN 690996-72-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-(11H-dibenz[b,e]azepin-6-ylmethyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



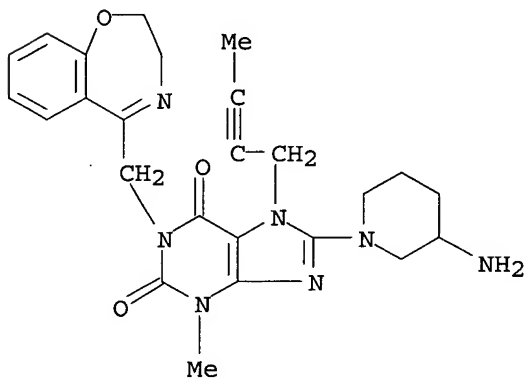
RN 690996-73-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 690996-74-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(2,3-dihydro-1,4-benzoxazepin-5-yl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



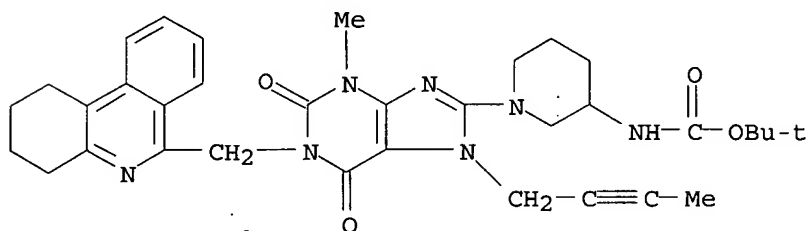
IT 668274-80-4P 690996-52-2P 690996-53-3P
 690996-55-5P 690996-56-6P 690996-57-7P
 690996-64-6P 690996-65-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(preparation of xanthines as inhibitors of dipeptidyl peptidase IV (DPP-IV))

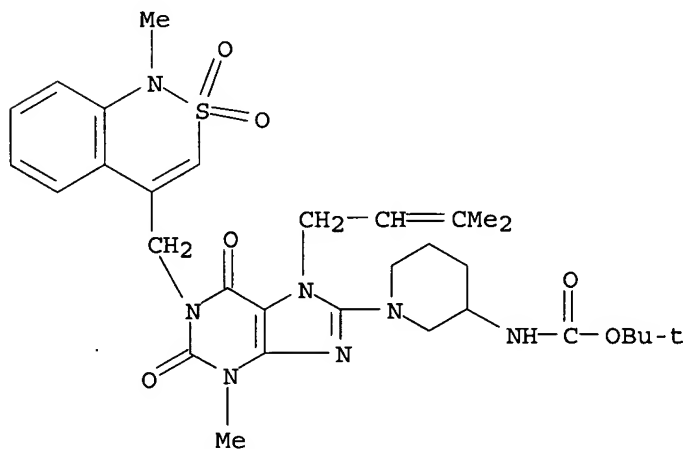
RN 668274-80-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-
 [(1,2,3,4-tetrahydro-6-phenanthridinyl)methyl]-1H-purin-8-yl]-3-
 piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



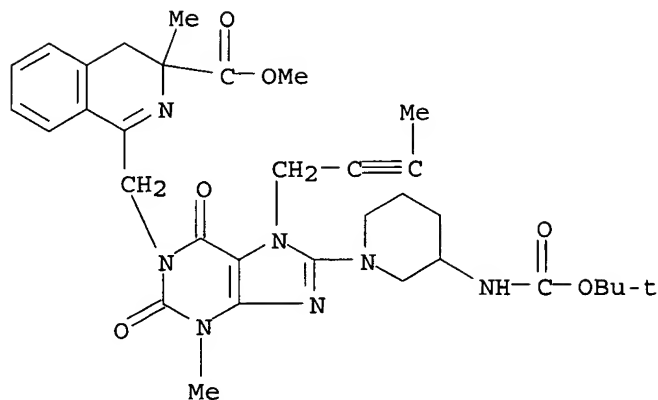
RN 690996-52-2 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-1-
 [(1-methyl-2,2-dioxido-1H-2,1-benzothiazin-4-yl)methyl]-2,6-dioxo-1H-purin-
 8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



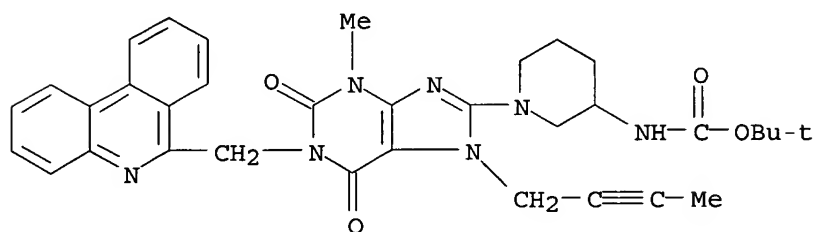
RN 690996-53-3 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 1-[[7-(2-butynyl)-8-[3-[[[(1,1-
 dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-
 2,6-dioxo-1H-purin-1-yl]methyl]-3,4-dihydro-3-methyl-, methyl ester (9CI)
 (CA INDEX NAME)



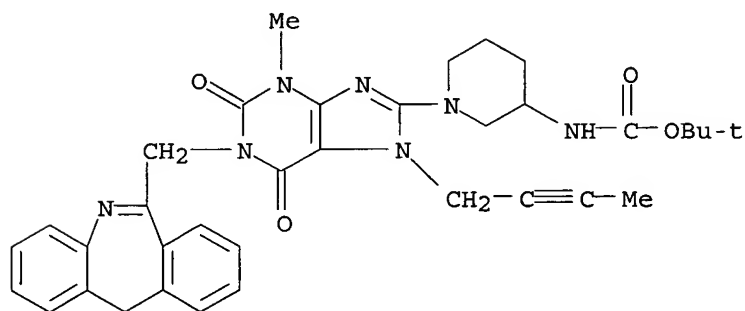
RN 690996-55-5 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(6-phenanthridinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



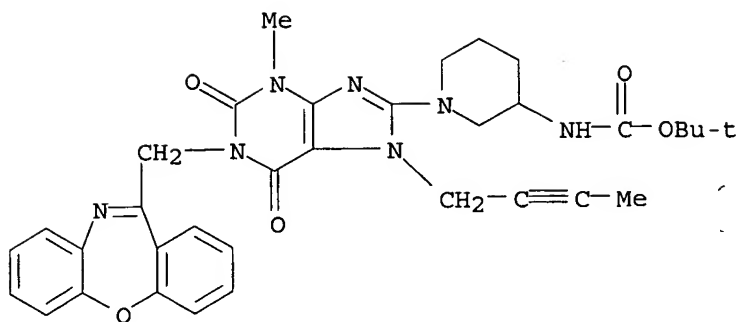
RN 690996-56-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-(11H-dibenz[b,e]azepin-6-ylmethyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



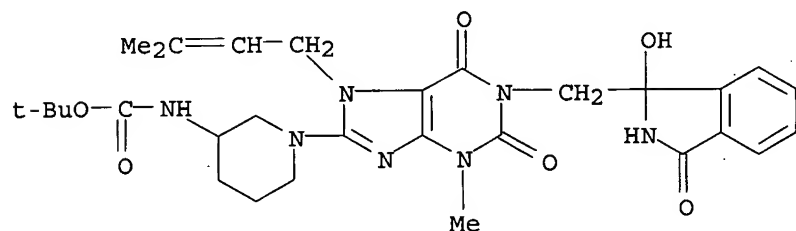
RN 690996-57-7 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-(dibenz[b,f][1,4]oxazepin-11-ylmethyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 690996-64-6 CAPLUS

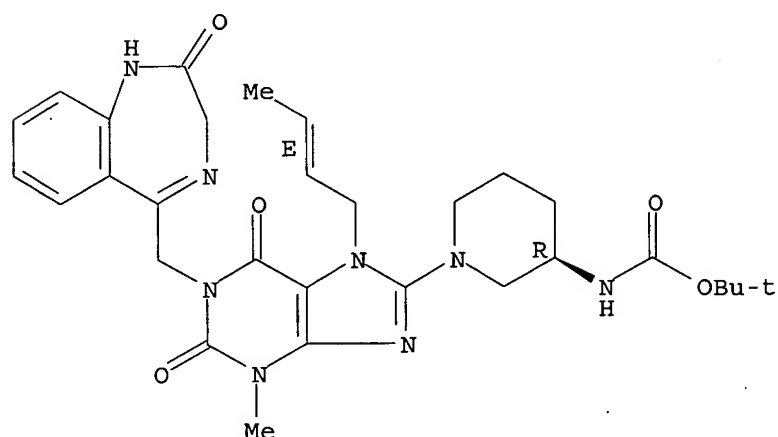
CN Carbamic acid, [1-[1-[(2,3-dihydro-1-hydroxy-3-oxo-1H-isoindol-1-yl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 690996-65-7 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2E)-2-butenyl-1-[(2,3-dihydro-2-oxo-1H-1,4-benzodiazepin-5-yl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



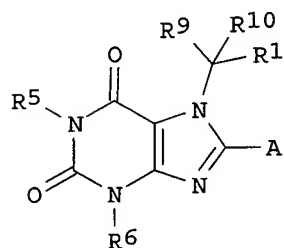
L8 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:333717 CAPLUS

DOCUMENT NUMBER: 140:357368
TITLE: Preparation of succinate salts of substituted
purine-2,6-diones as DPP-IV inhibitors
INVENTOR(S): Rasmussen, Kaare Gyberg; Jensen, Anette Frost;
Nygaard, Lars
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 101 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

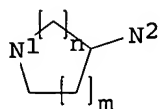
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004033455	A2	20040422	WO 2003-DK668	20031008
WO 2004033455	A3	20040527		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			DK 2002-1507	A 20021008
			US 2002-418677P	P 20021015

OTHER SOURCE(S): MARPAT 140:357368
GI

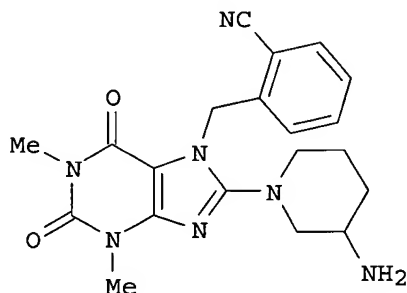
no
P3 sub



I



II



III

AB The present invention relates to therapeutically active and selective hemisuccinate salts of inhibitors of the enzyme DPP-IV I [A= II; A may be attached at either N1 or at N2 to the purine system; n = 1-2; m = 1-3; R1 = (un)substituted (hetero)aryl; R5 = H, alkyl, cycloalkyl, etc.; R6 = alkyl, cycloalkyl, aryl, etc.; R9, R10 = H, alkyl, haloalkyl], pharmaceutical compns. comprising the salts and the use of such salts for and the manufacture of medicaments for treating diseases that are associated with

proteins that are subject to inactivation by DPP-IV, such as type 2 diabetes and obesity (no biol. data given). Over 100 compds. I were prepared E.g., a 2-step synthesis of III.TFA, starting from 8-chlorotheophylline and 2-cyanobenzyl bromide, was given. General procedure for preparation of succinate and hemisuccinate salts of compds. I is described (one example of such preparation given).

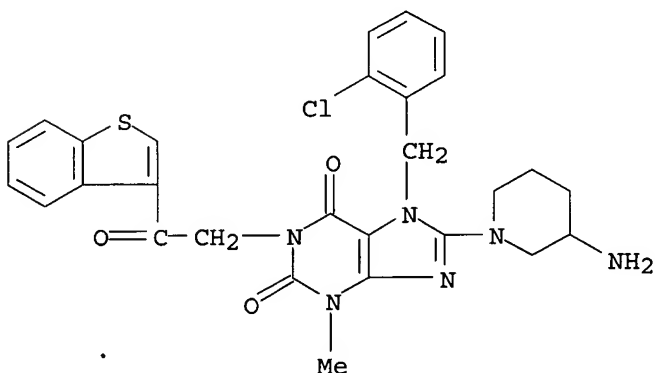
IT 485820-95-9P 485821-10-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of succinate salts of substituted purine-2,6-diones as DPP-IV inhibitors)

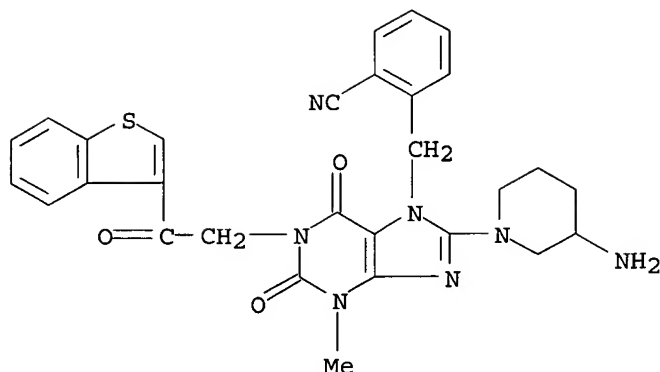
RN 485820-95-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(2-benzo[b]thien-3-yl-2-oxoethyl)-7-[(2-chlorophenyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 485821-10-1 CAPLUS

CN Benzonitrile, 2-[[8-(3-amino-1-piperidinyl)-1-(2-benzo[b]thien-3-yl-2-oxoethyl)-1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-7H-purin-7-yl]methyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:182879 CAPLUS

DOCUMENT NUMBER: 140:235743

TITLE: Preparation of 8-[3-aminopiperidin-1-yl]xanthines as dipeptidylpeptidase-IV (DPP-IV) inhibitors.

INVENTOR(S): Himmelsbach, Frank; Langkopf, Elke; Eckhardt, Matthias; Mark, Michael; Maier, Roland; Lotz, Ralf Richard Hermann; Tadayyon, Mohammad

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G., Germany

SOURCE: PCT Int. Appl., 226 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

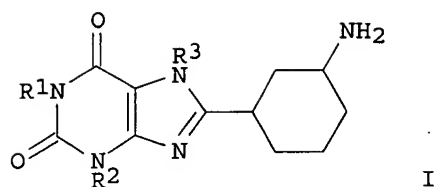
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004018468	A2	20040304	WO 2003-EP309127	20030818
WO 2004018468	A3	20040408		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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DE 10312353	A1	20040930	DE 2003-10312353	20030320
CA 2496249	AA	20040304	CA 2003-2496249	20030818
EP 1532149	A2	20050525	EP 2003-792359	20030818
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRIORITY APPLN. INFO.:			DE 2002-10238243	A 20020821
			DE 2003-10312353	A 20030320
			WO 2003-EP9127	W 20030818

OTHER SOURCE(S): MARPAT 140:235743

GI



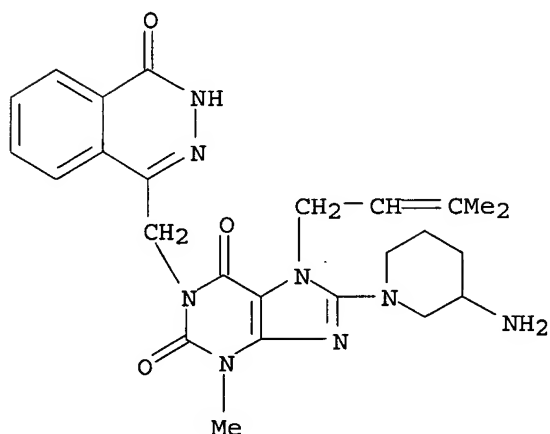
AB Title compds. (I; R1 = Me substituted by Me2NCO, pyrrolidin-1-ylcarbonyl, piperidin-1-ylcarbonyl, tert-butylcarbonyl, naphthyl, nitronaphthyl, dimethylaminonaphthyl, phenyloxadiazolyl, quinolinyl, indolyl, cinnolinyl, benzothienyl, etc.; R2 = Me, Me2CH, Ph; R3 = 2-methyl-2-propen-1-yl, 2-chloro-2-propen-1-yl, 3-bromo-2-propen-1-yl, 2-buten-1-yl, 2,3-dimethyl-2-buten-1-yl, 2-butyn-1-yl, 1-cyclopenten-1-ylmethyl, 2-furylmethyl), were prepared Thus, 1,3-dimethyl-7-(2,6-dicyanobenzyl)-8-bromoxanthine (preparation from 8-bromotheophylline and 2-bromomethylisophthalonitrile given), 3-aminopiperidine dihydrochloride, and K2CO3 were heated in DMF for 3 h at 80° to give 14% 1,3-dimethyl-7-(2,6-dicyanobenzyl)-8-(3-aminopiperidin-1-yl)xanthine. I inhibited DPP-IV with IC50 = 1-2160 nM.

IT 668268-94-8P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of aminopiperidinylxanthines as dipeptidylpeptidase-IV inhibitors)

RN 668268-94-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(3,4-dihydro-4-oxo-1-phthalazinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI)
(CA INDEX NAME)



IT 668268-90-4P 668268-91-5P 668268-92-6P
668268-93-7P 668268-95-9P 668268-97-1P
668269-01-0P 668269-17-8P 668269-18-9P
668269-21-4P 668269-22-5P 668269-25-8P
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668269-33-8P 668269-35-0P 668269-39-4P

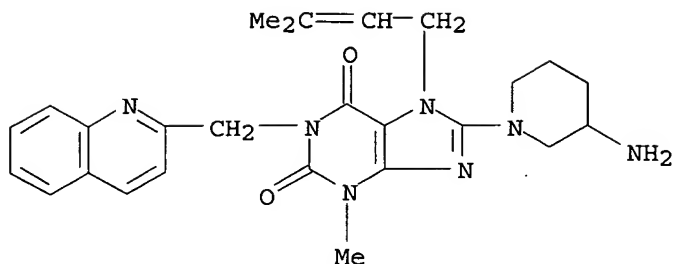
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668269-55-4P 668269-65-6P 668269-99-6P
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668271-81-6P 668271-92-9P 668276-56-0P
668276-93-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(preparation of aminopiperidinylxanthines as dipeptidylpeptidase-IV
inhibitors)

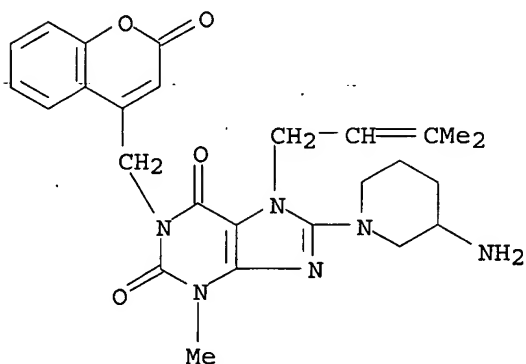
RN 668268-90-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-
methyl-2-butenyl)-1-(2-quinolinylmethyl)- (9CI) (CA INDEX NAME)



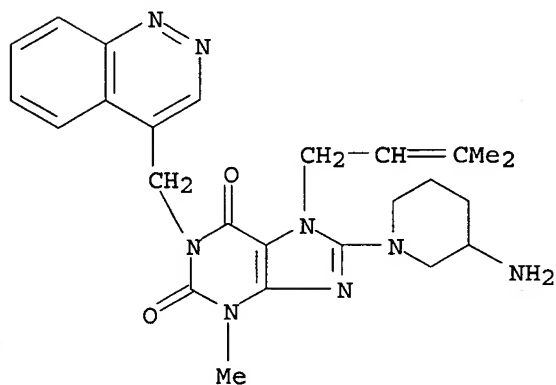
RN 668268-91-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-[(2-oxo-2H-1-benzopyran-4-yl)methyl]- (9CI) (CA INDEX NAME)



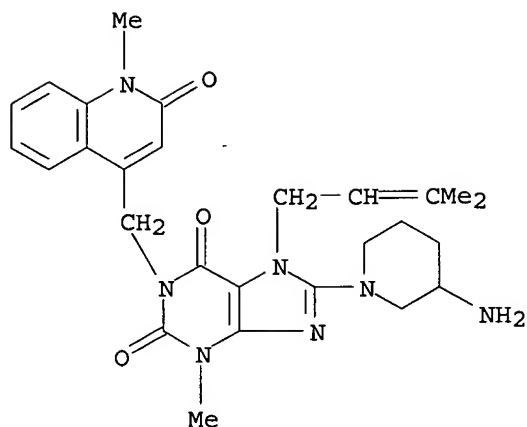
RN 668268-92-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(4-cinnolinylmethyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



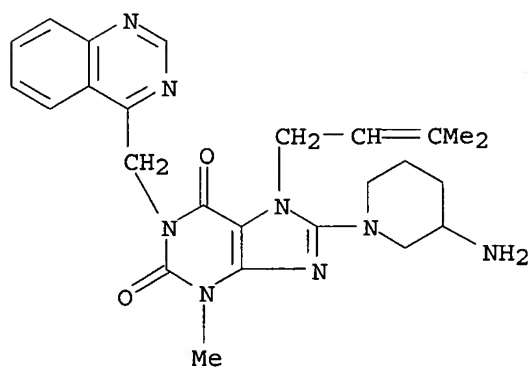
RN 668268-93-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(1,2-dihydro-1-methyl-2-oxo-4-quinolinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



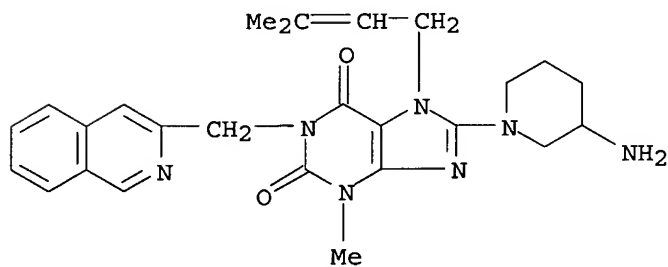
RN 668268-95-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-(4-quinazolinylmethyl)- (9CI) (CA INDEX NAME)



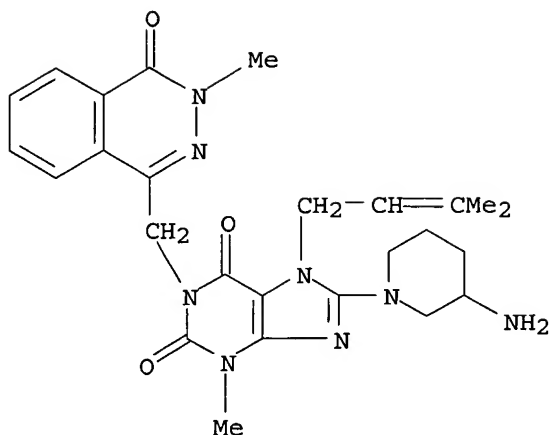
RN 668268-97-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-1-(3-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 668269-01-0 CAPLUS

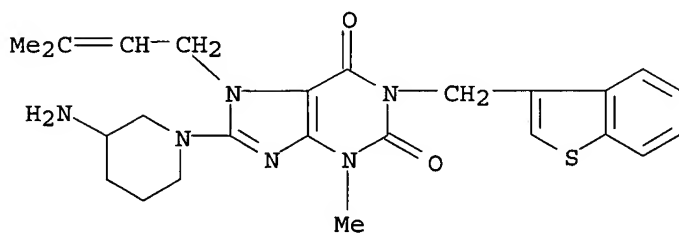
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(3,4-dihydro-3-methyl-4-oxo-1-phthalazinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

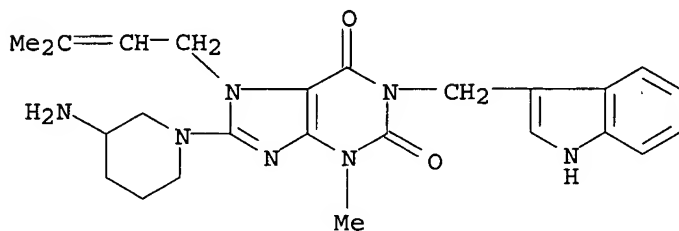
RN 668269-17-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(benzo[b]thien-3-ylmethyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



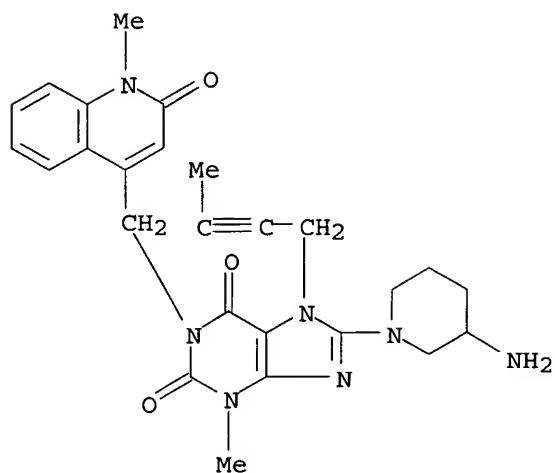
RN 668269-18-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-1-(1H-indol-3-ylmethyl)-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



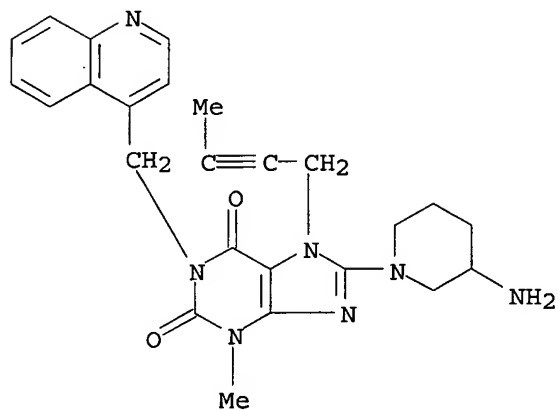
RN 668269-21-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(1,2-dihydro-1-methyl-2-oxo-4-quinolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



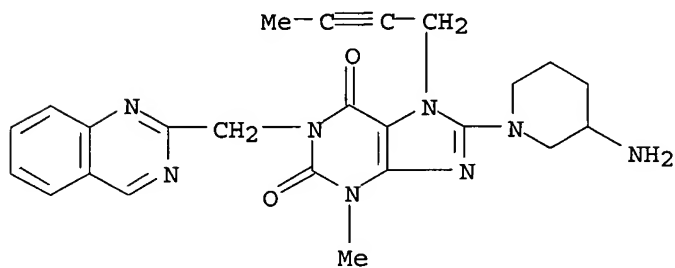
RN 668269-22-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(4-quinolinylmethyl)- (9CI) (CA INDEX NAME)



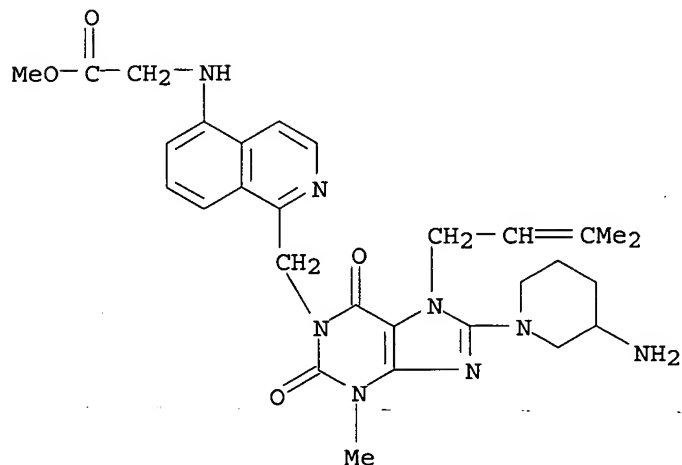
RN 668269-25-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)



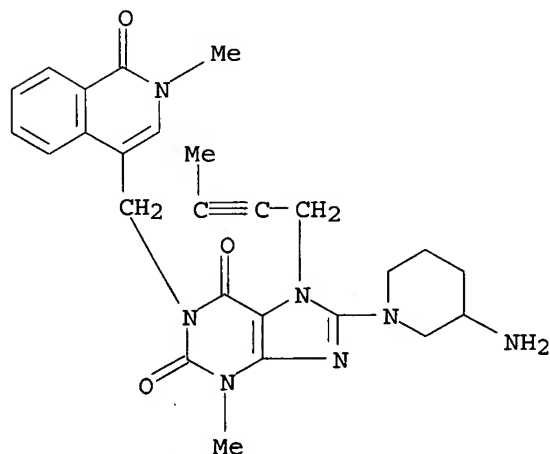
RN 668269-27-0 CAPLUS

CN Glycine, N-[1-[[8-(3-amino-1-piperidinyl)-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-1-yl]methyl]-5-isoquinolinyl]-, methyl ester (9CI) (CA INDEX NAME)



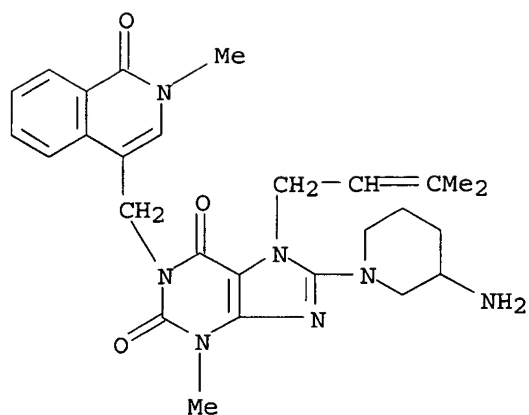
RN 668269-30-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butyryl)-1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-3,7-dihydro-3-methyl- (9CI)
(CA INDEX NAME)



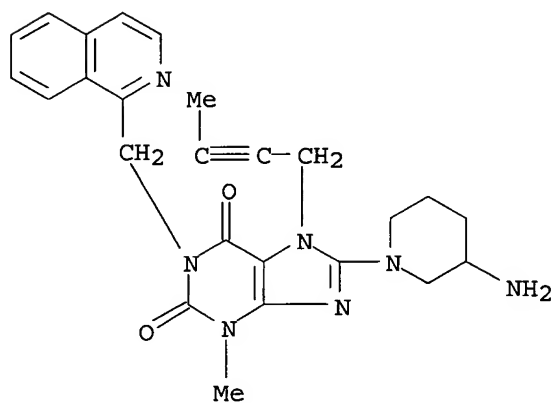
RN 668269-31-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



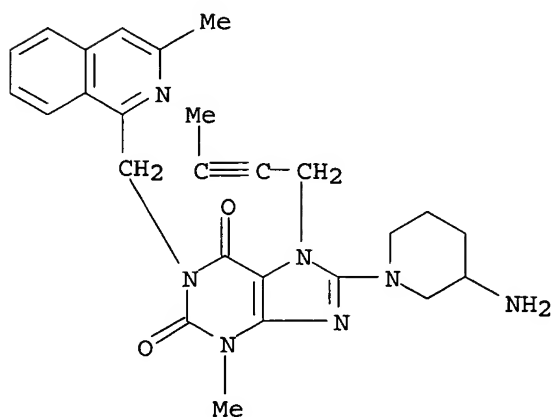
RN 668269-33-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-1-(1-isoquinolinylmethyl)-3-methyl- (9CI) (CA INDEX NAME)



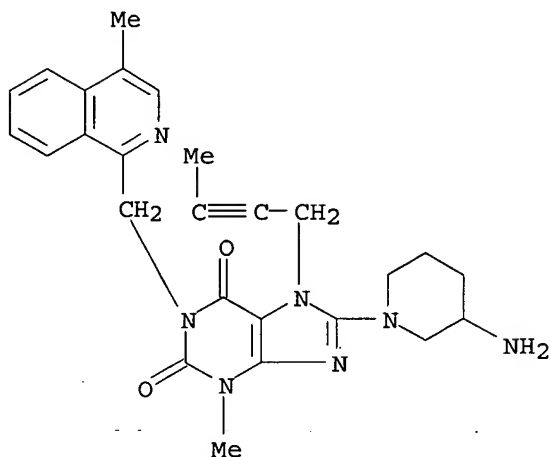
RN 668269-35-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)



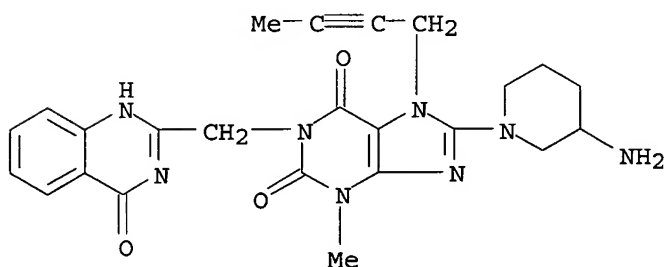
RN 668269-39-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)



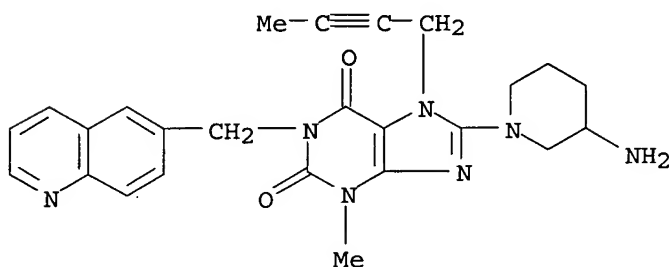
RN 668269-41-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(1,4-dihydro-4-oxo-2-quinazoliny)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 668269-42-9 CAPLUS

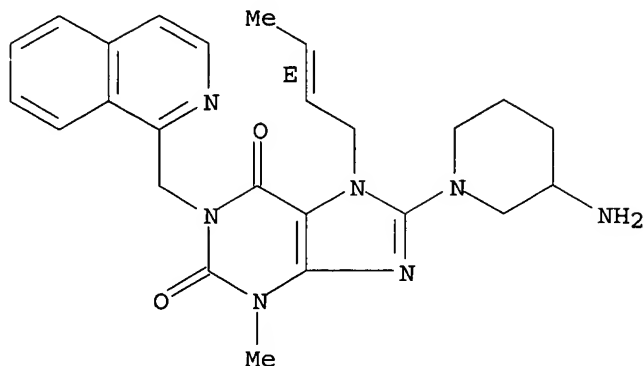
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(6-quinolinylmethyl)- (9CI) (CA INDEX NAME)



RN 668269-44-1 CAPLUS

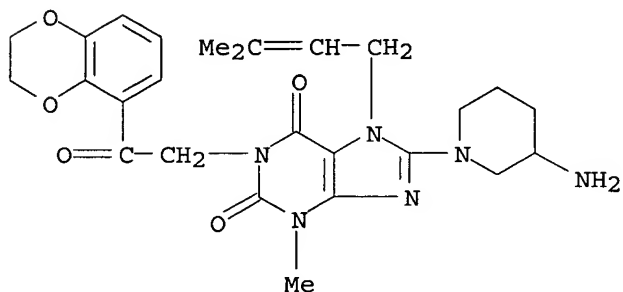
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2E)-2-butenyl-3,7-dihydro-1-(1-isoquinoliny)methyl)-3-methyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



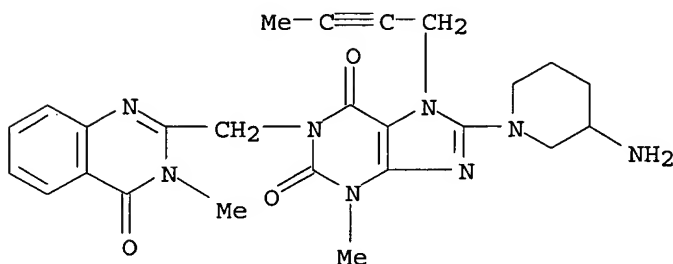
RN 668269-46-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



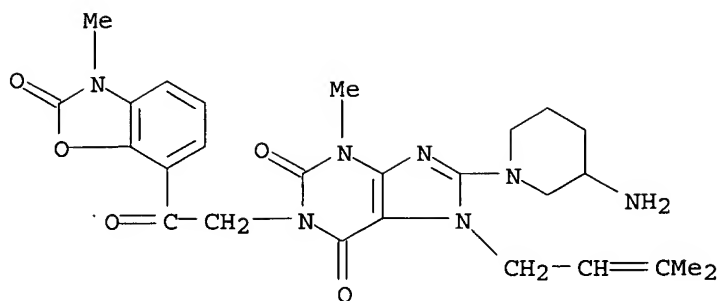
RN 668269-47-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



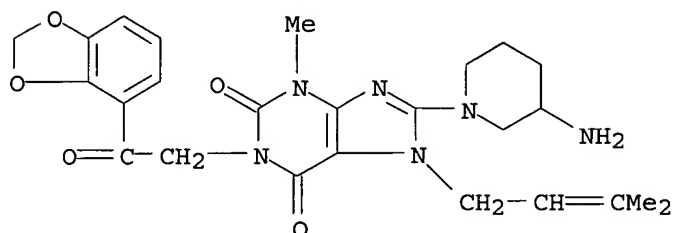
RN 668269-48-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(2,3-dihydro-3-methyl-2-oxo-7-benzoxazolyl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 668269-49-6 CAPLUS

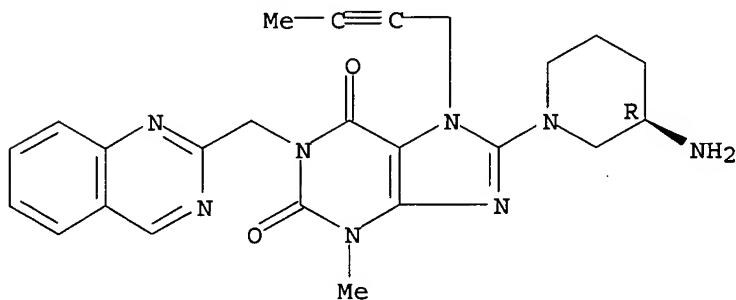
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 668269-50-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

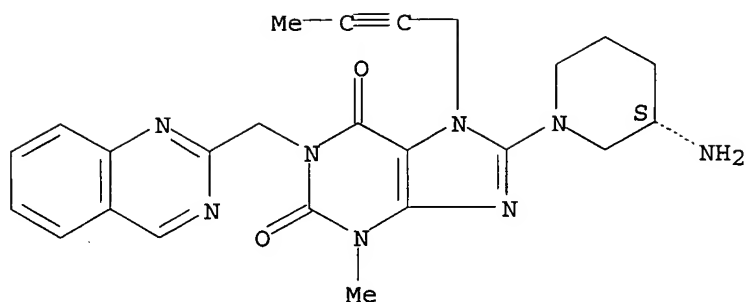
Absolute stereochemistry.



RN 668269-51-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

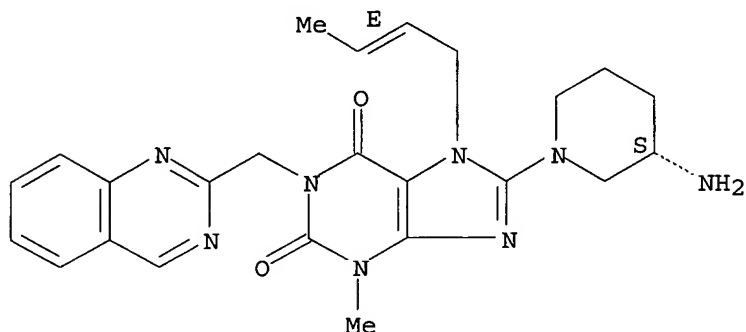
Absolute stereochemistry.



RN 668269-52-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

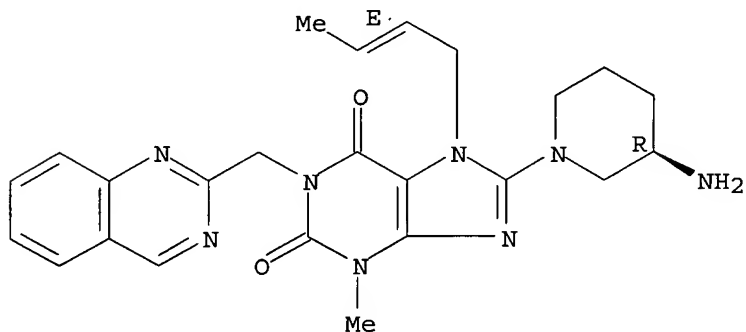
Absolute stereochemistry.
Double bond geometry as shown.



RN 668269-53-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

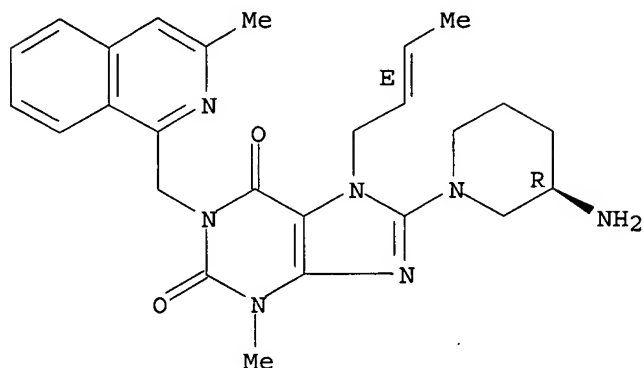
Absolute stereochemistry.
Double bond geometry as shown.



RN 668269-54-3 CAPLUS

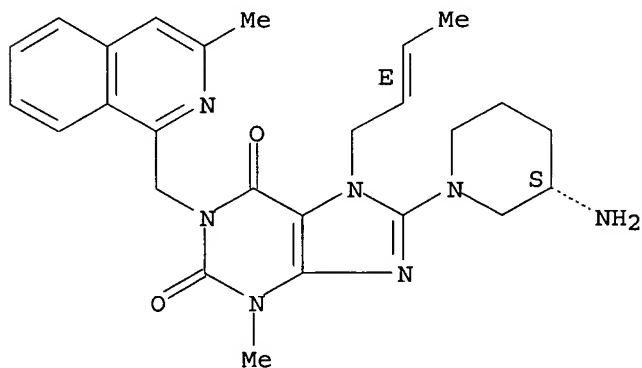
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

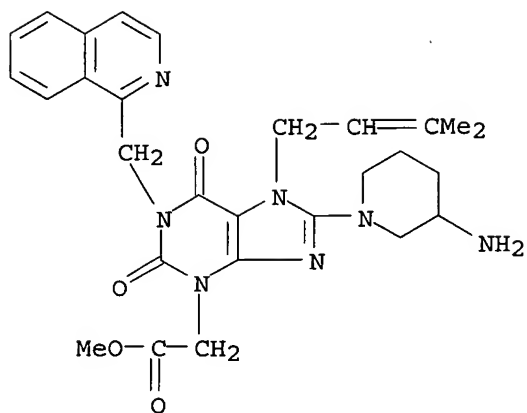


RN 668269-55-4 CAPLUS
CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



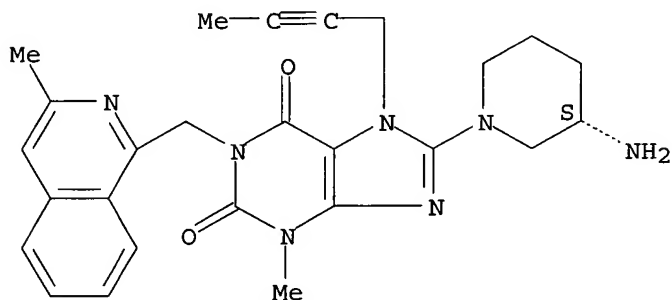
RN 668269-65-6 CAPLUS
CN 3H-Purine-3-acetic acid, 8-(3-amino-1-piperidinyl)-1,2,6,7-tetrahydro-1-(1-isoquinoliny)methyl)-7-(3-methyl-2-butenyl)-2,6-dioxo-, methyl ester (9CI) (CA INDEX NAME)



RN 668269-99-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

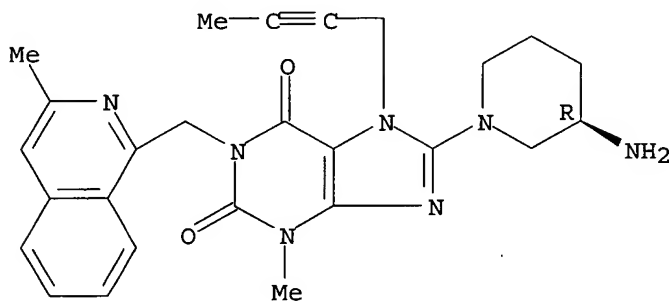
Absolute stereochemistry.



RN 668270-00-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

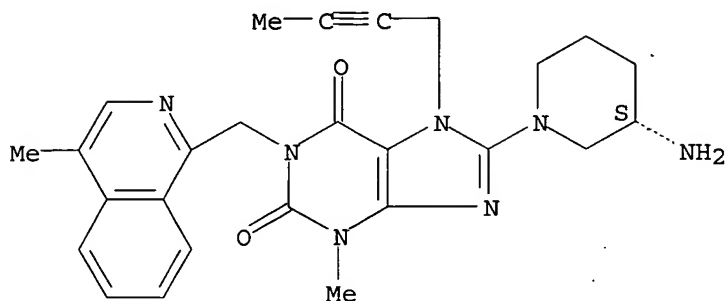


RN 668270-01-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-

dihydro-3-methyl-1-[(4-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

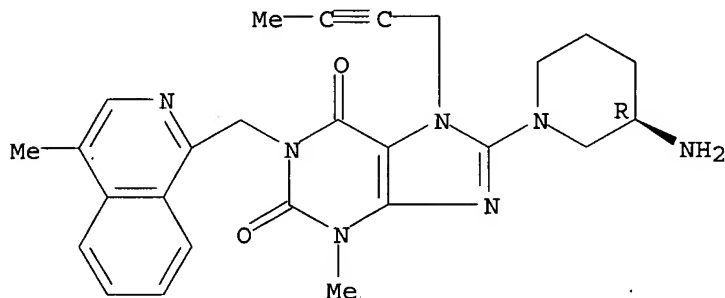
Absolute stereochemistry.



RN 668270-02-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

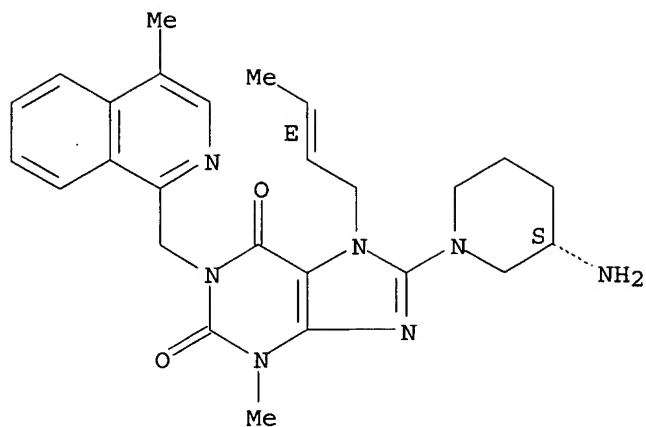


RN 668270-03-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

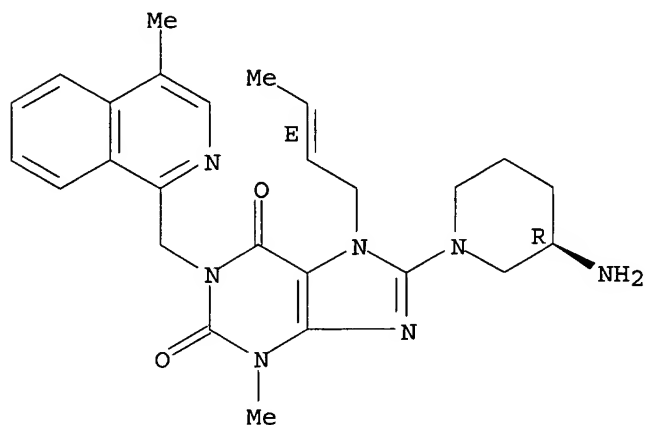
Double bond geometry as shown.



RN 668270-04-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

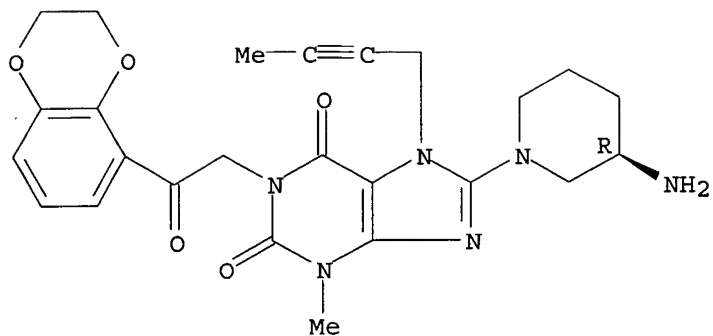
Absolute stereochemistry.
Double bond geometry as shown.



RN 668270-05-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

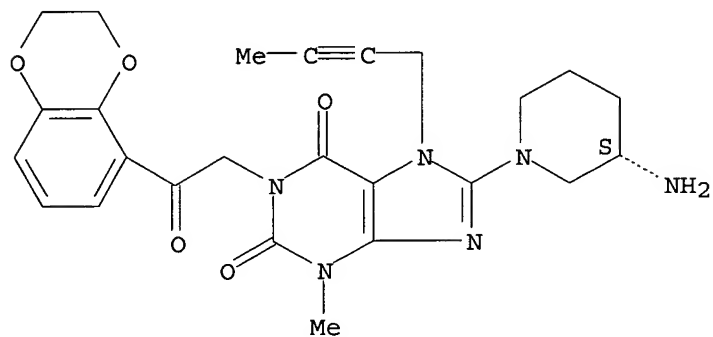
Absolute stereochemistry.



RN 668270-06-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI)
(CA INDEX NAME)

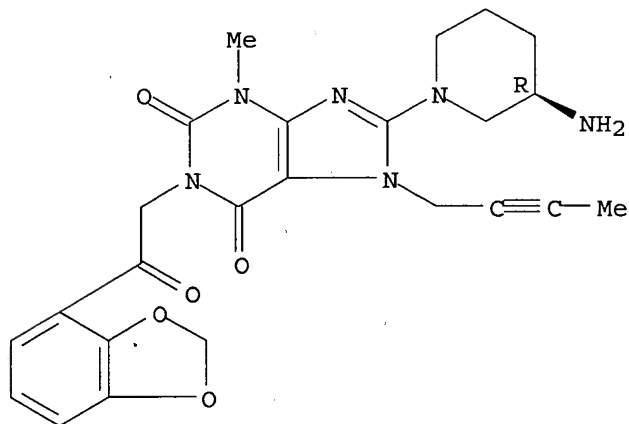
Absolute stereochemistry.



RN 668270-09-5 CAPLUS

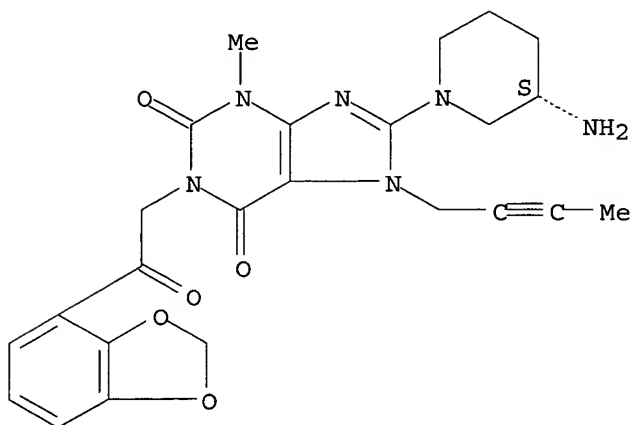
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



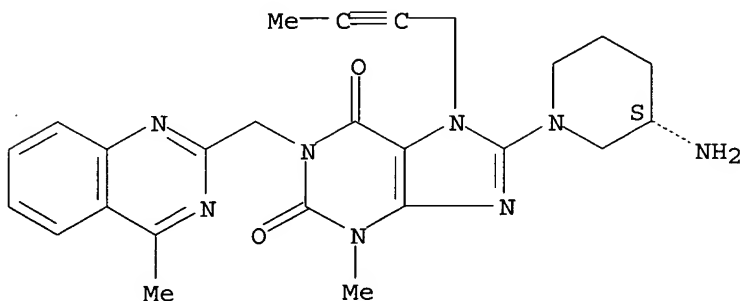
RN 668270-10-8 CAPLUS
 CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



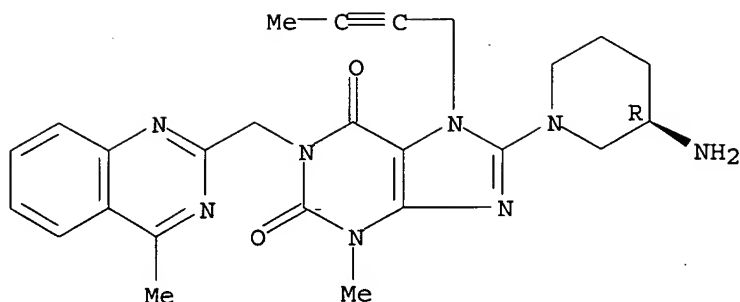
RN 668270-11-9 CAPLUS
 CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



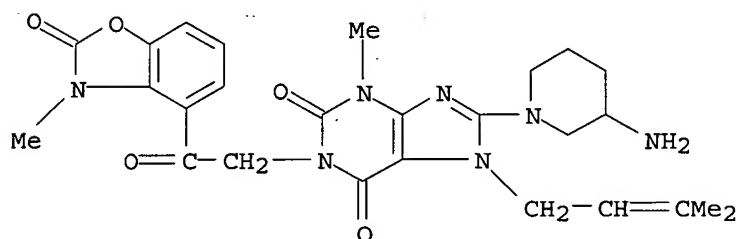
RN 668270-12-0 CAPLUS
 CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



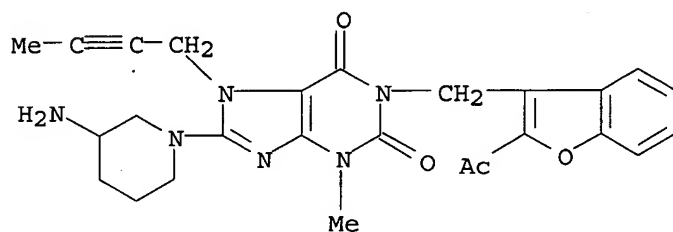
RN 668270-13-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(2,3-dihydro-3-methyl-2-oxo-4-benzoxazolyl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



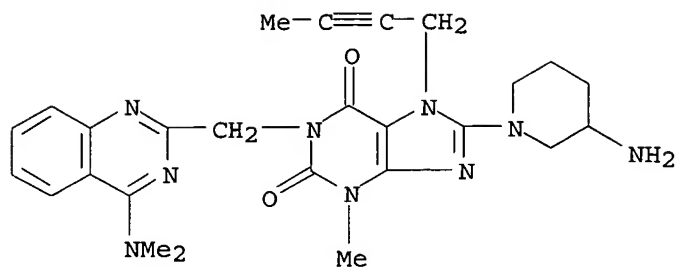
RN 668270-30-2 CAPLUS

CN 1H-Purine-2,6-dione, 1-[(2-acetyl-3-benzofuranyl)methyl]-8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



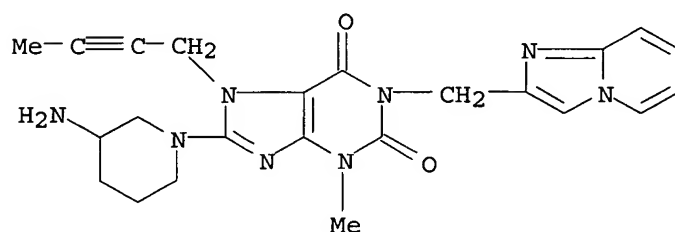
RN 668270-33-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[[4-(dimethylamino)-2-quinazolinyl]methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



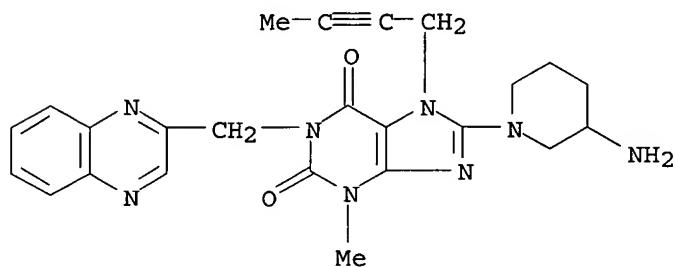
RN 668270-37-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-1-(imidazo[1,2-a]pyridin-2-ylmethyl)-3-methyl- (9CI) (CA INDEX NAME)



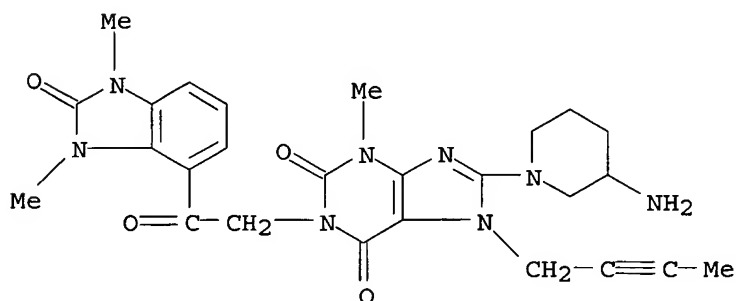
RN 668270-38-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(2-quinoxalinylnmethyl)- (9CI) (CA INDEX NAME)



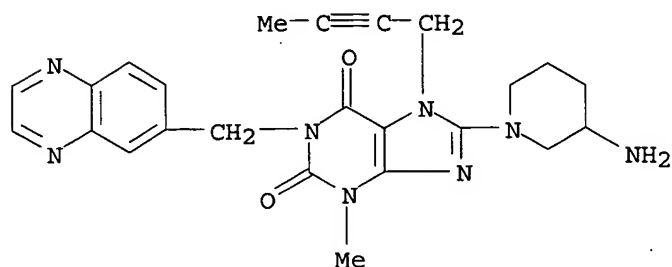
RN 668270-39-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[2-(2,3-dihydro-1,3-dimethyl-2-oxo-1H-benzimidazol-4-yl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



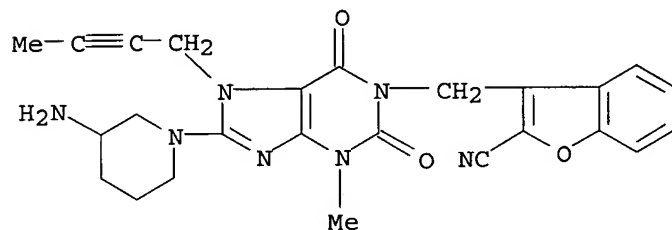
RN 668270-40-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(6-quinoxalinylmethyl)- (9CI) (CA INDEX NAME)



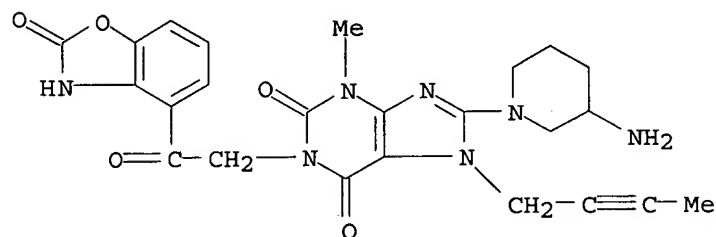
RN 668270-41-5 CAPLUS

CN 2-Benzofurancarbonitrile, 3-[[8-(3-amino-1-piperidinyl)-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]methyl]- (9CI) (CA INDEX NAME)



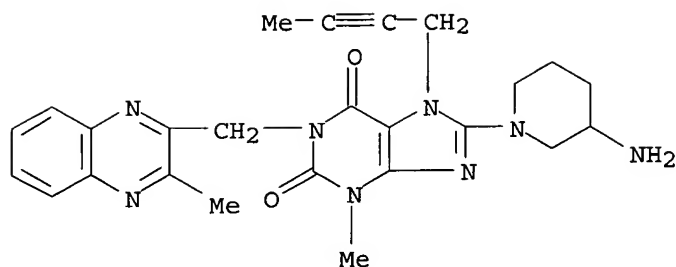
RN 668270-42-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[2-(2,3-dihydro-2-oxo-4-benzoxazolyl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



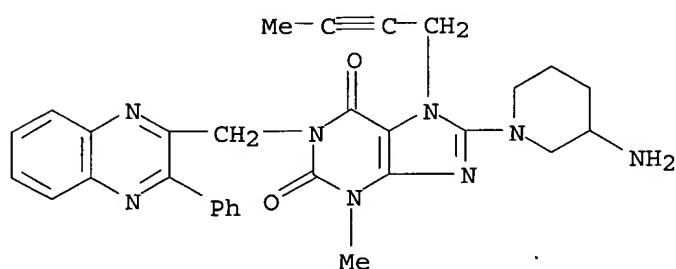
RN 668270-43-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-methyl-2-quinoxalinylmethyl)- (9CI) (CA INDEX NAME)



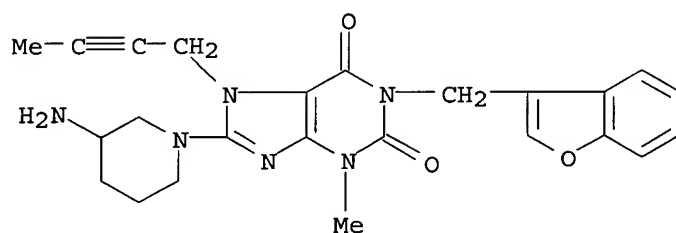
RN 668270-44-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-phenyl-2-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)



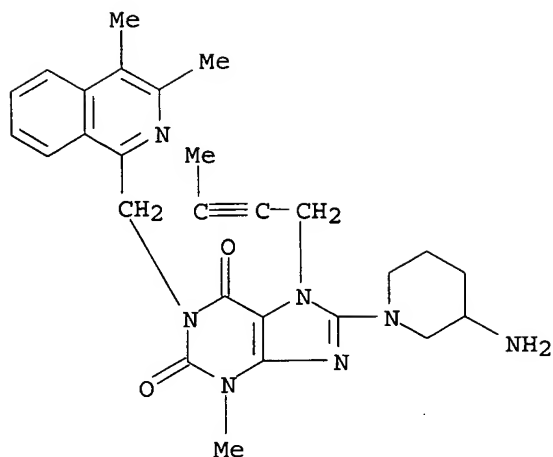
RN 668270-47-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(3-benzofuranylmethyl)-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 668270-48-2 CAPLUS

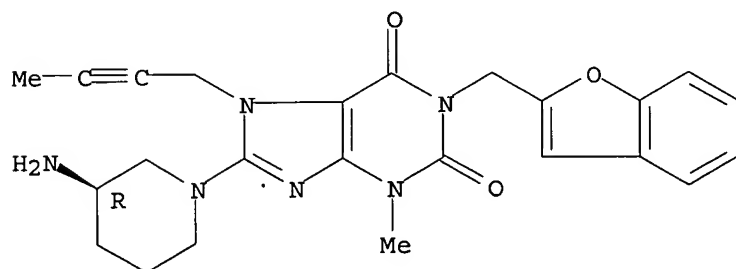
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(3,4-dimethyl-1-isoquinolinyl)methyl]-3,7-dihydro-3-methyl-, monohydrochloride (9CI) (CA INDEX NAME)



RN 668270-49-3 CAPLUS

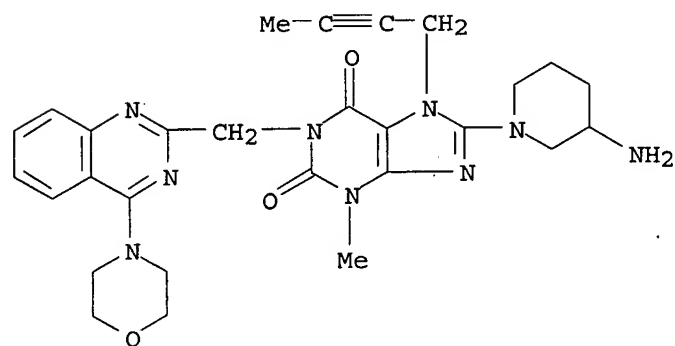
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-1-(2-benzofuranylmethyl)-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. .



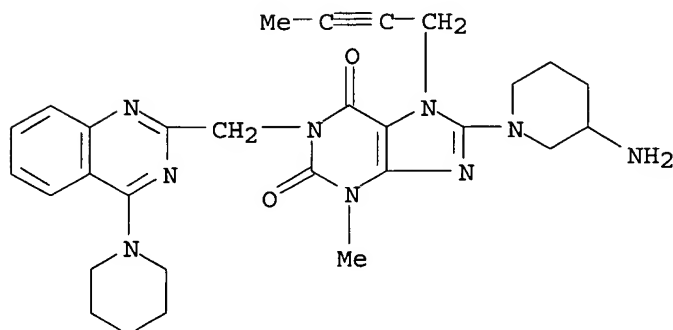
RN 668270-50-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[4-(4-morpholinyl)-2-quinazolinyl]methyl]- (9CI) (CA INDEX NAME)



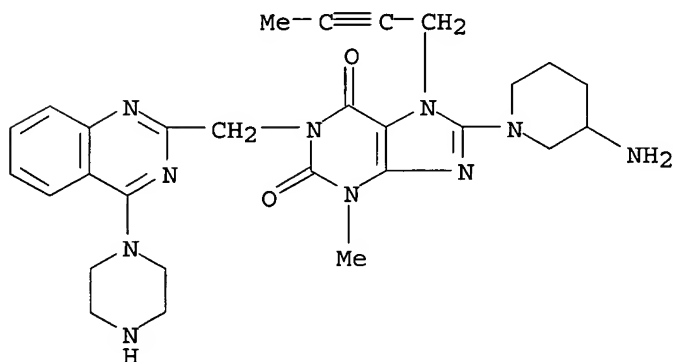
RN 668270-51-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[4-(1-piperidinyl)-2-quinazolinyl]methyl]- (9CI) (CA INDEX NAME)



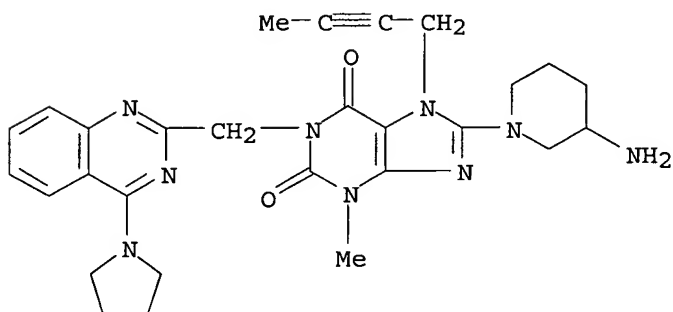
RN 668270-52-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[4-(1-piperazinyl)-2-quinazolinyl]methyl]- (9CI) (CA INDEX NAME)



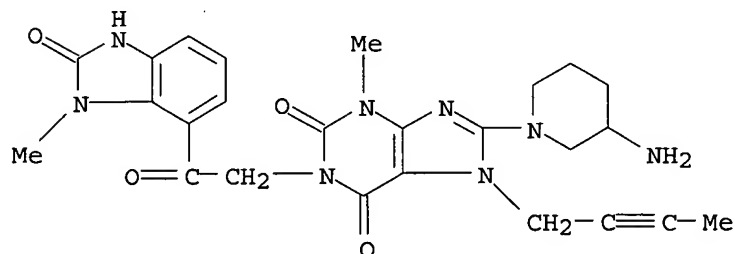
RN 668270-53-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[4-(1-pyrrolidinyl)-2-quinazolinyl]methyl]- (9CI) (CA INDEX NAME)



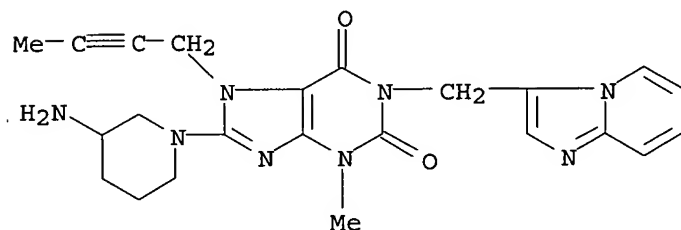
RN 668270-54-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny1)-7-(2-butynyl)-1-[2-(2,3-dihydro-3-methyl-2-oxo-1H-benzimidazol-4-yl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



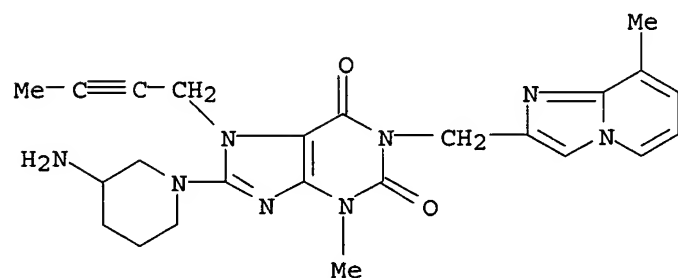
RN 668270-56-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny1)-7-(2-butynyl)-3,7-dihydro-1-(imidazo[1,2-a]pyridin-3-ylmethyl)-3-methyl- (9CI) (CA INDEX NAME)



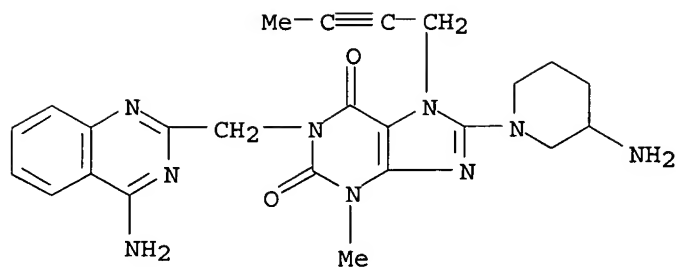
RN 668270-57-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny1)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(8-methylimidazo[1,2-a]pyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)



RN 668270-58-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny1)-1-[(4-amino-2-quinazolinyl)methyl]-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



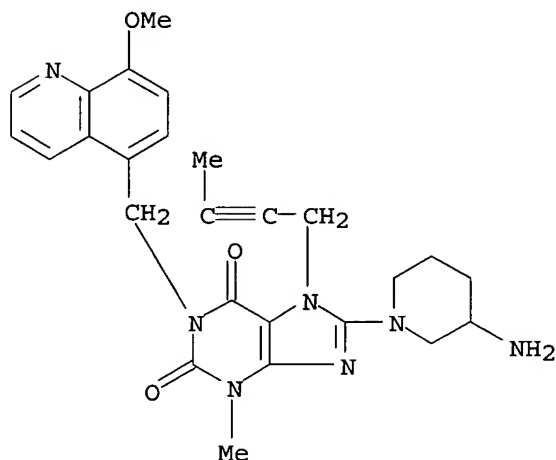
RN 668270-61-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-1-[(8-methoxy-5-quinolinyl)methyl]-3-methyl-, bis(trifluoroacetate) (9CI)
(CA INDEX NAME)

CM 1

CRN 668270-60-8

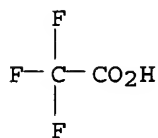
CMF C26 H29 N7 O3



CM 2

CRN 76-05-1

CMF C2 H F3 O2



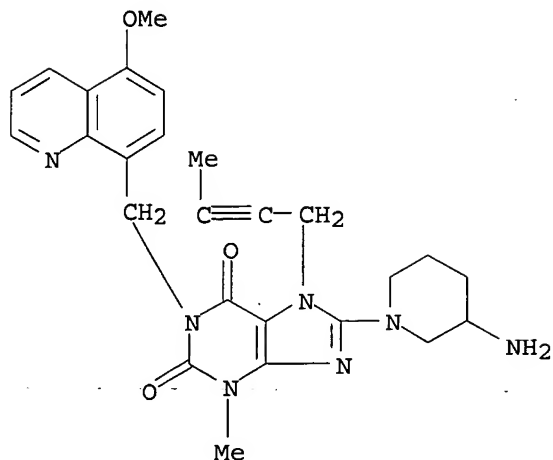
RN 668270-63-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-1-[(5-methoxy-8-quinolinyl)methyl]-3-methyl-, mono(trifluoroacetate) (9CI)
(CA INDEX NAME)

CM 1

CRN 668270-62-0

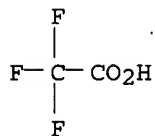
CMF C26 H29 N7 O3



CM 2

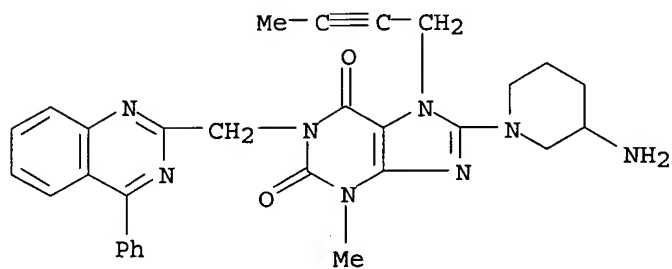
CRN 76-05-1

CMF C2 H F3 O2



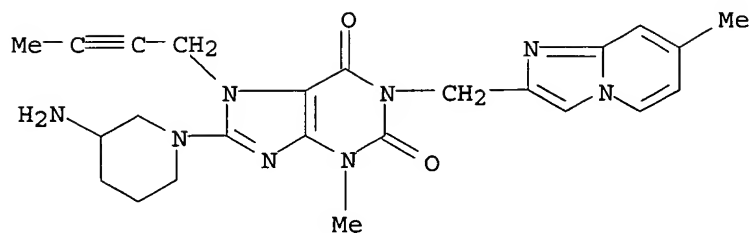
RN 668270-64-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-phenyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)



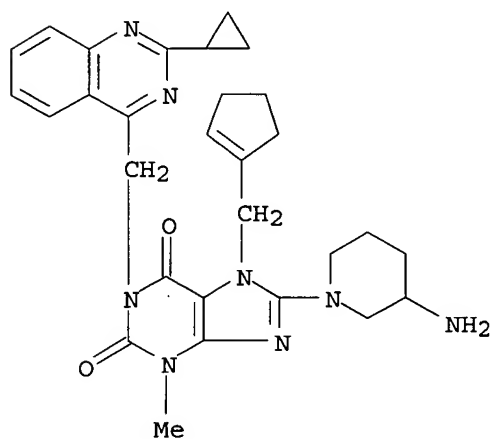
RN 668270-65-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(7-methylimidazo[1,2-a]pyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)



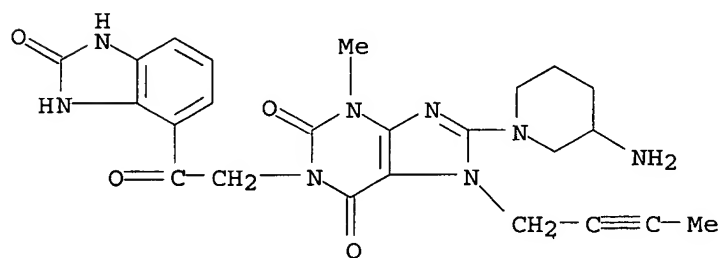
RN 668270-66-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(1-cyclopenten-1-ylmethyl)-1-[(2-cyclopropyl-4-quinazolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 668270-70-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[2-(2,3-dihydro-2-oxo-1H-benzimidazol-4-yl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

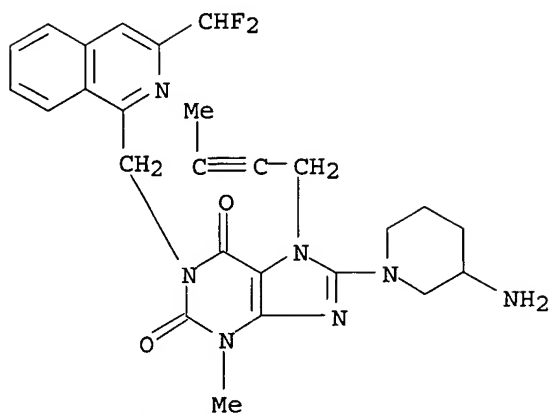


RN 668270-72-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[[3-(difluoromethyl)-1-isoquinolinyl]methyl]-3,7-dihydro-3-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

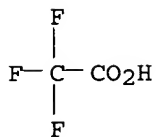
CM 1

CRN 668270-71-1
CMF C26 H27 F2 N7 O2



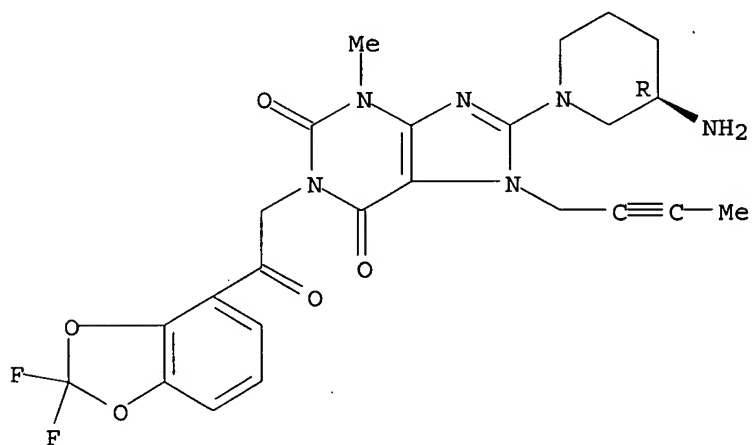
CM 2

CRN 76-05-1
CMF C2 H F3 O2



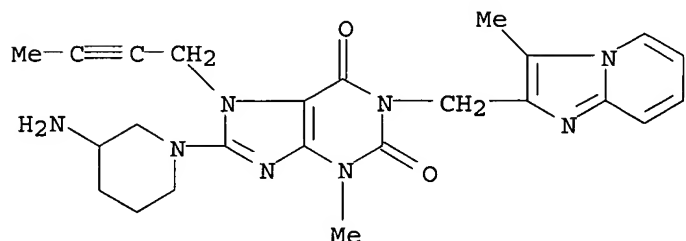
RN 668270-73-3 CAPLUS
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-1-[2-(2,2-difluoro-1,3-benzodioxol-4-yl)-2-oxoethyl]-3,7-dihydro-3-methyl-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 668270-74-4 CAPLUS

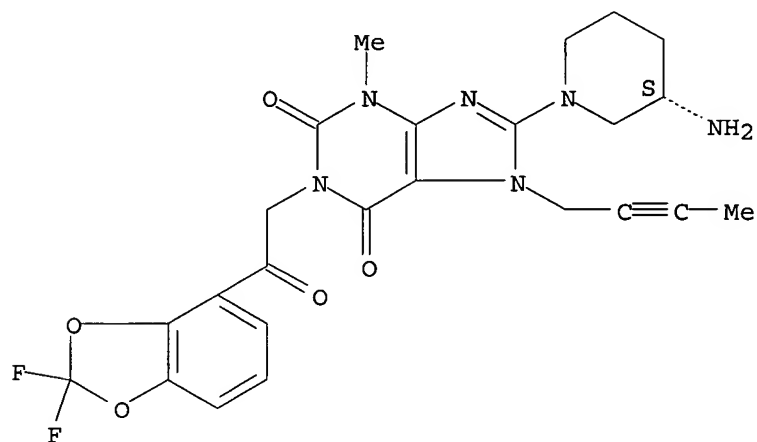
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-methylimidazo[1,2-a]pyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)



RN 668270-75-5 CAPLUS

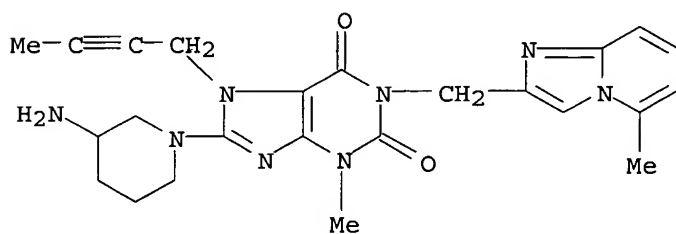
CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-1-[2-(2,2-difluoro-1,3-benzodioxol-4-yl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



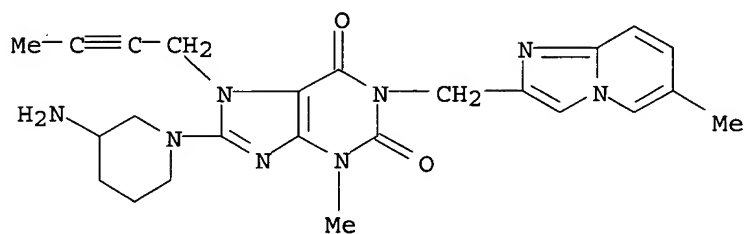
RN 668270-76-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(5-methylimidazo[1,2-a]pyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)



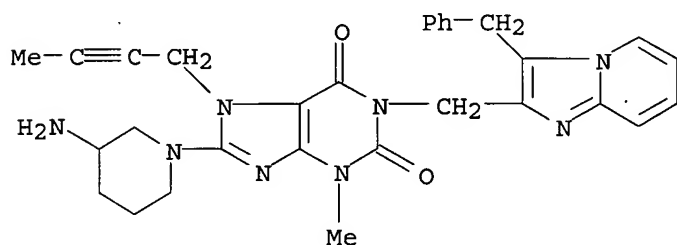
RN 668270-77-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(6-methylimidazo[1,2-a]pyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)



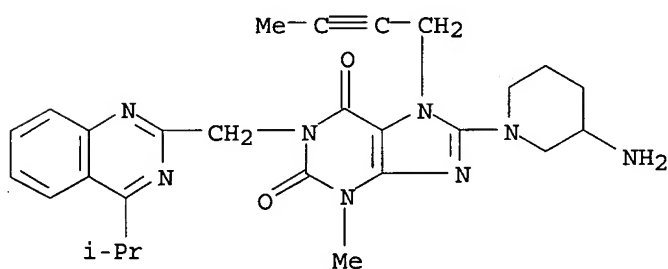
RN 668270-78-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[3-(phenylmethyl)imidazo[1,2-a]pyridin-2-yl]methyl]- (9CI) (CA INDEX NAME)



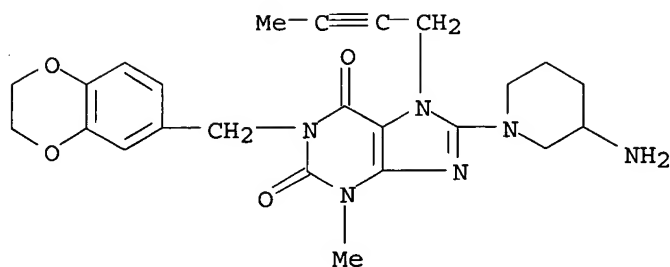
RN 668270-79-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[4-(1-methylethyl)-2-quinazolinyl]methyl]- (9CI) (CA INDEX NAME)



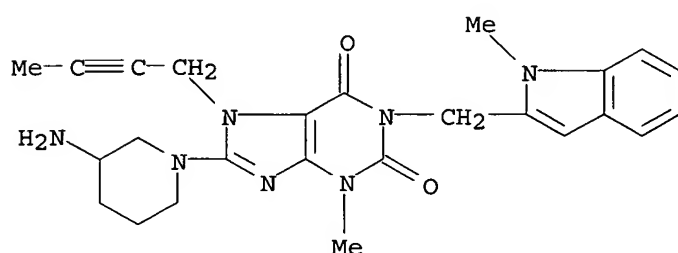
RN 668270-80-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(2,3-dihydro-1,4-benzodioxin-6-yl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 668270-81-3 CAPLUS

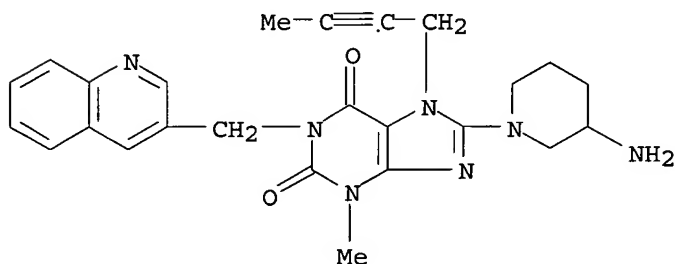
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(1-methyl-1H-indol-2-yl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

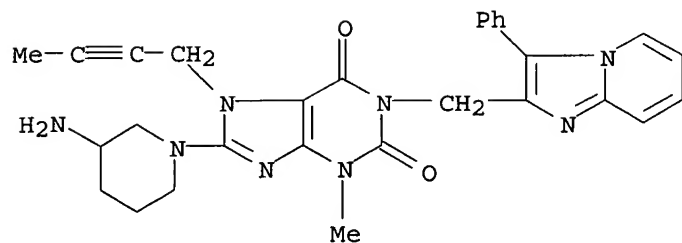
RN 668270-82-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(3-quinolinylmethyl)- (9CI) (CA INDEX NAME)



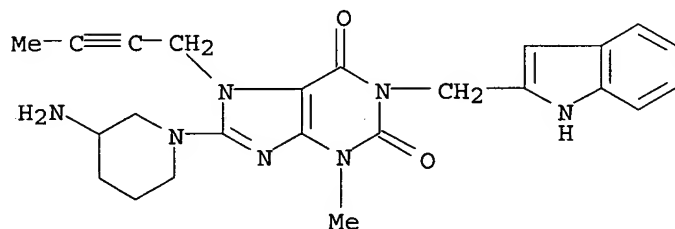
RN 668270-83-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-phenylimidazo[1,2-a]pyridin-2-yl)methyl]- (9CI) (CA INDEX NAME)



RN 668270-84-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny)-7-(2-butynyl)-3,7-dihydro-1-(1H-indol-2-ylmethyl)-3-methyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

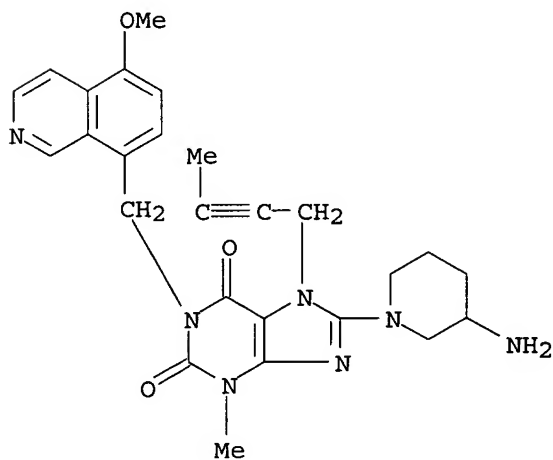
RN 668270-87-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny)-7-(2-butynyl)-3,7-dihydro-1-[(5-methoxy-8-isoquinoliny)methyl]-3-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668270-86-8

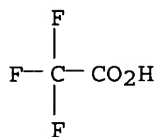
CMF C26 H29 N7 O3



CM 2

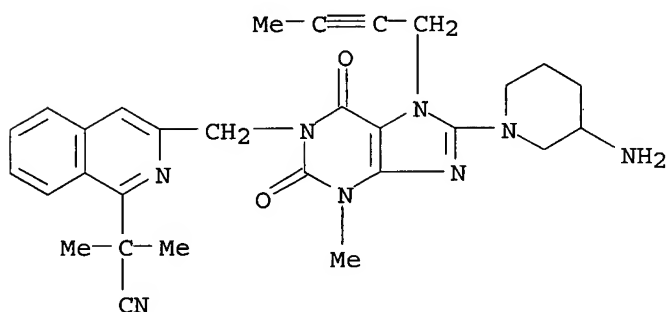
CRN 76-05-1

CMF C2 H F3 O2



RN 668270-88-0 CAPLUS

CN 1-Isoquinolineacetonitrile, 3-[[8-(3-amino-1-piperidinyl)-7-(2-butyryl)-
2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]methyl]-
 α,α -dimethyl- (9CI) (CA INDEX NAME)



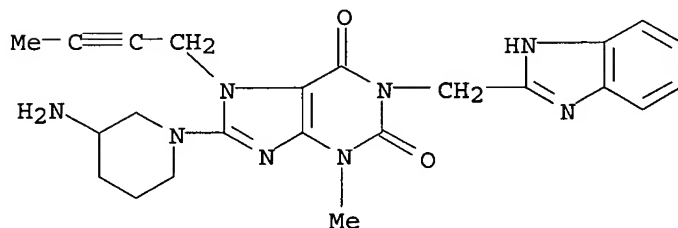
RN 668270-92-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(1H-benzimidazol-2-
ylmethyl)-7-(2-butyryl)-3,7-dihydro-3-methyl-, trifluoroacetate (9CI) (CA
INDEX NAME)

CM 1

CRN 668270-91-5

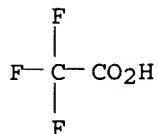
CMF C23 H26 N8 O2



CM 2

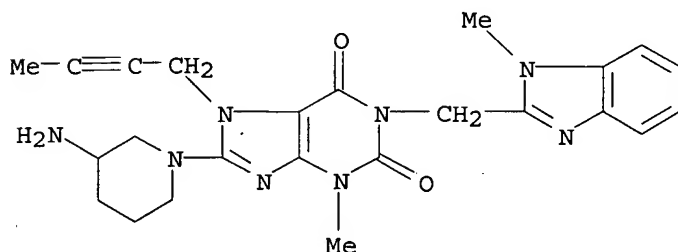
CRN 76-05-1

CMF C2 H F3 O2



RN 668270-93-7 CAPLUS

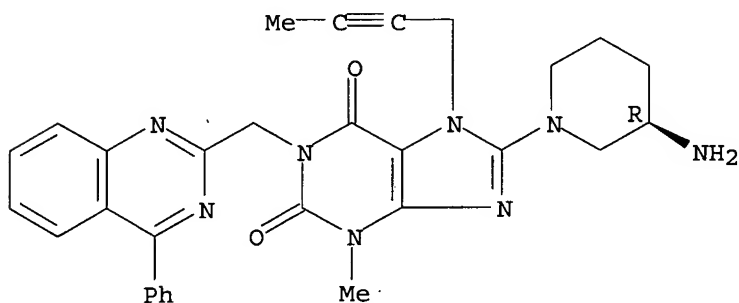
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny1)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(1-methyl-1H-benzimidazol-2-yl)methyl]- (9CI) (CA INDEX NAME)



RN 668270-94-8 CAPLUS

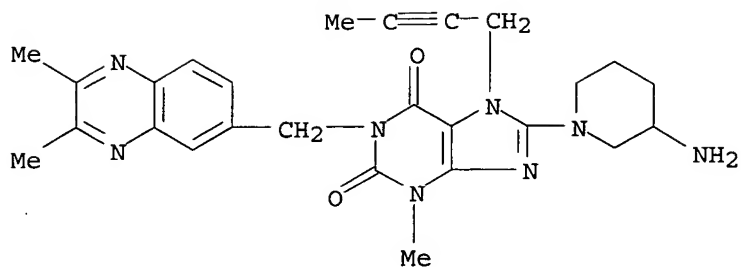
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidiny1]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-phenyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



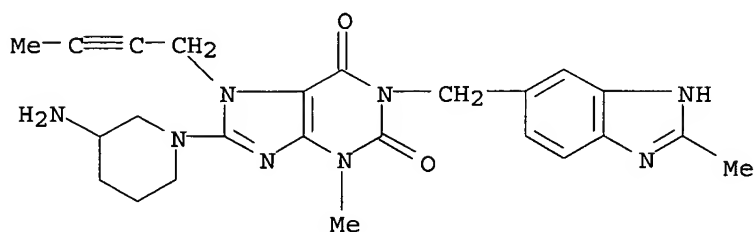
RN 668270-95-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny1)-7-(2-butynyl)-1-[(2,3-dimethyl-6-quinoxaliny1)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 668270-96-0 CAPLUS

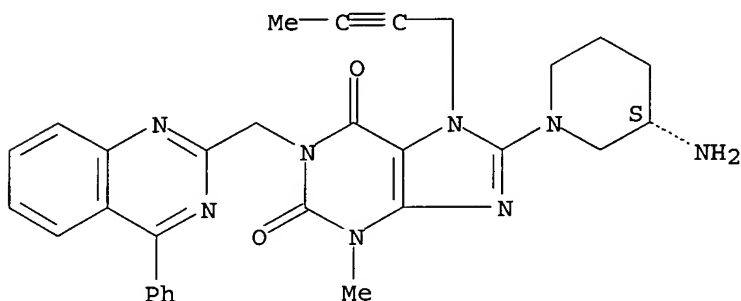
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(2-methyl-1H-benzimidazol-5-yl)methyl]- (9CI) (CA INDEX NAME)



RN 668270-97-1 CAPLUS

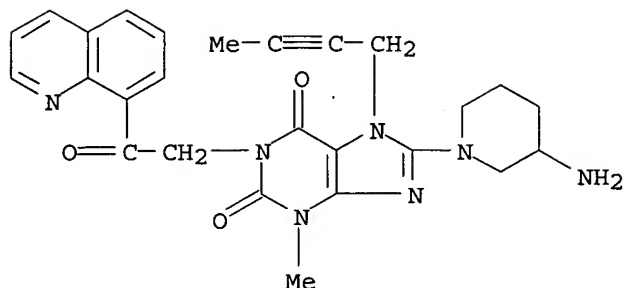
CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-phenyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 668270-98-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[2-oxo-2-(8-quinolinyl)ethyl]- (9CI) (CA INDEX NAME)



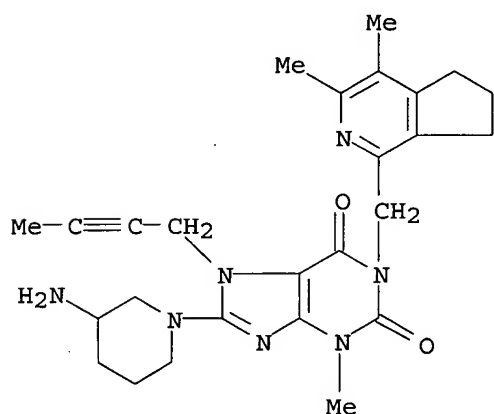
RN 668271-00-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(6,7-dihydro-3,4-dimethyl-5H-cyclopenta[c]pyridin-1-yl)methyl]-3,7-dihydro-3-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668270-99-3

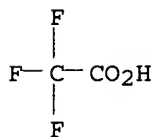
CMF C26 H33 N7 O2



CM 2

CRN 76-05-1

CMF C2 H F3 O2



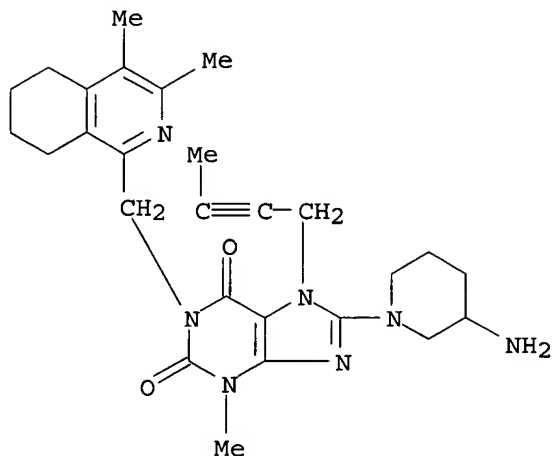
RN 668271-02-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(5,6,7,8-tetrahydro-3,4-dimethyl-1-isoquinolinyl)methyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668271-01-0

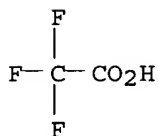
CMF C27 H35 N7 O2



CM 2

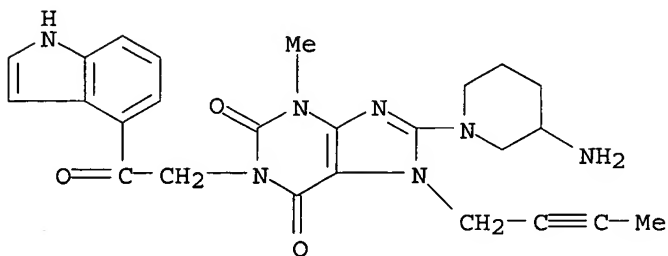
CRN 76-05-1

CMF C2 H F3 O2



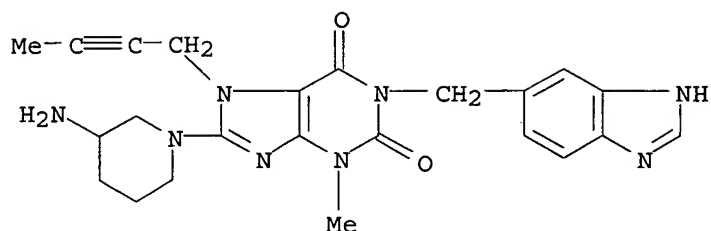
RN 668271-03-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-1-[2-(1H-indol-4-yl)-2-oxoethyl]-3-methyl- (9CI) (CA INDEX NAME)



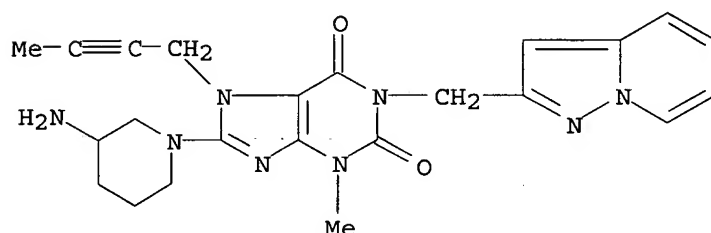
RN 668271-04-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(1H-benzimidazol-5-ylmethyl)-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



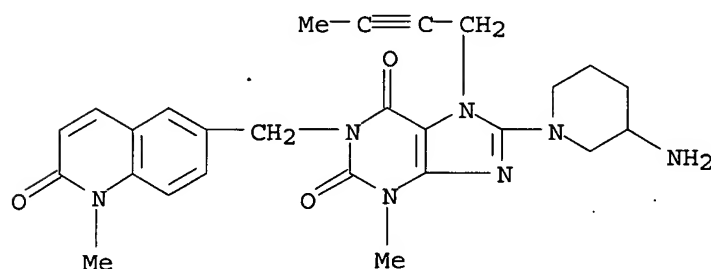
RN 668271-05-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(pyrazolo[1,5-a]pyridin-2-ylmethyl)- (9CI) (CA INDEX NAME)



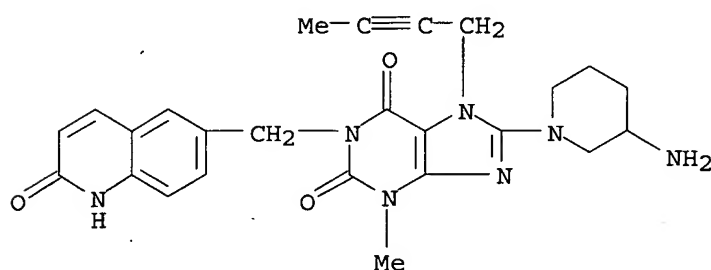
RN 668271-06-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(1,2-dihydro-1-methyl-2-oxo-6-quinolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



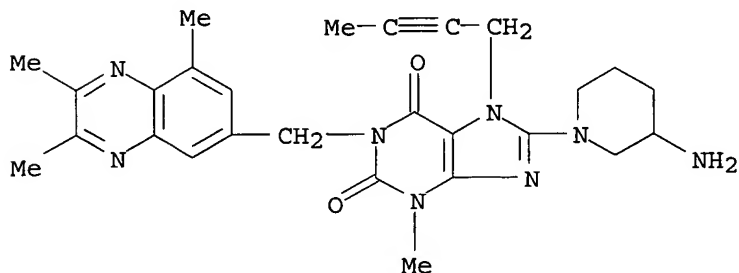
RN 668271-07-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(1,2-dihydro-2-oxo-6-quinolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



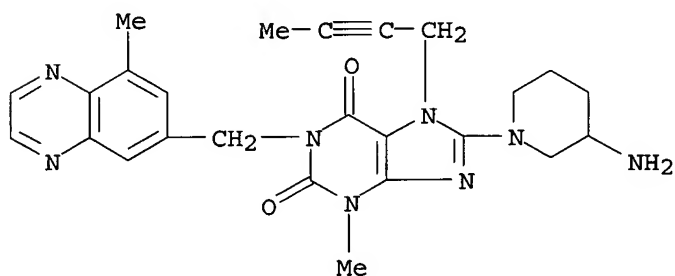
RN 668271-08-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(2,3,8-trimethyl-6-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)



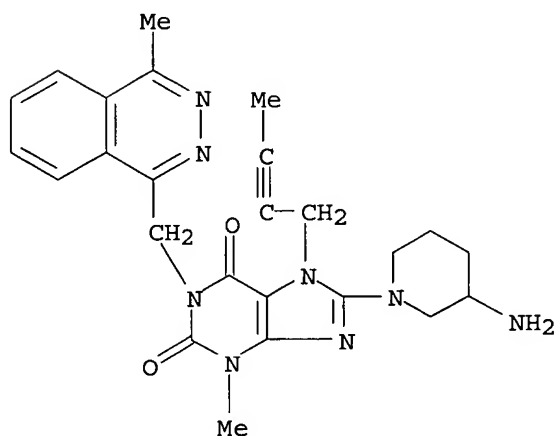
RN 668271-09-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(8-methyl-6-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)



RN 668271-10-1 CAPLUS

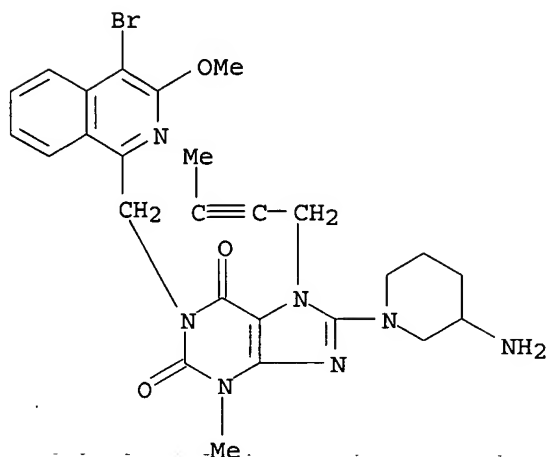
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-1-phthalazinyl)methyl]- (9CI) (CA INDEX NAME)



RN 668271-11-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(4-bromo-3-methoxy-1-

isoquinolinyl)methyl]-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



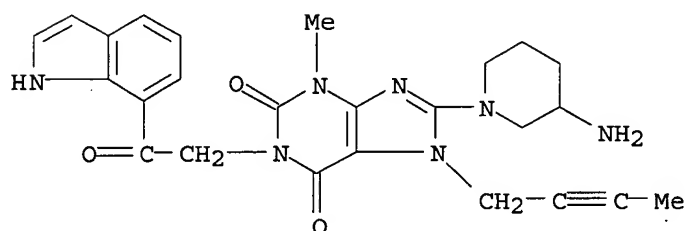
RN 668271-15-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-1-[2-(1H-indol-7-yl)-2-oxoethyl]-3-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668271-14-5

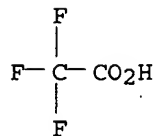
CMF C25 H27 N7 O3



CM 2

CRN 76-05-1

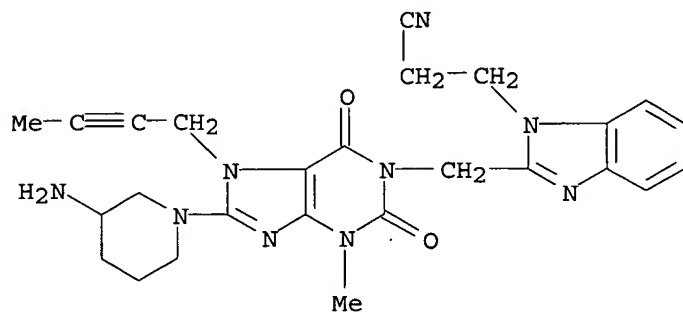
CMF C2 H F3 O2



RN 668271-19-0 CAPLUS

CN 1H-Benzimidazole-1-propanenitrile, 2-[[8-(3-amino-1-piperidinyl)-7-(2-

butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl)methyl]-,
monohydrochloride (9CI) (CA INDEX NAME)



● HCl

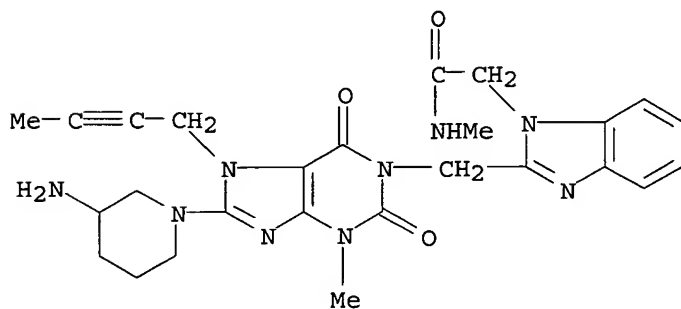
RN 668271-21-4 CAPLUS

CN 1H-Benzimidazole-1-acetamide, 2-[[8-(3-amino-1-piperidinyl)-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl)methyl]-N-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668271-20-3

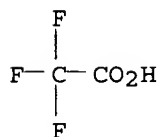
CMF C26 H31 N9 O3



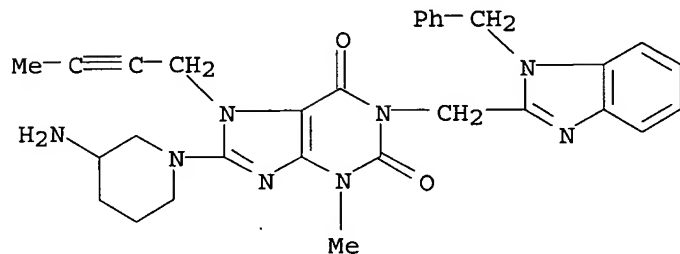
CM 2

CRN 76-05-1

CMF C2 H F3 O2



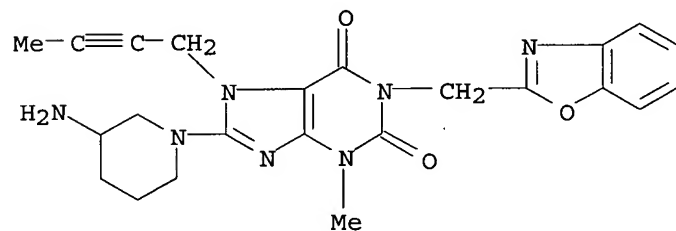
RN 668271-22-5 CAPLUS
 CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[1-(phenylmethyl)-1H-benzimidazol-2-yl]methyl]- (9CI) (CA INDEX NAME)



RN 668271-24-7 CAPLUS
 CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(2-benzoxazolylmethyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

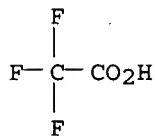
CM 1

CRN 668271-23-6
 CMF C23 H25 N7 O3



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

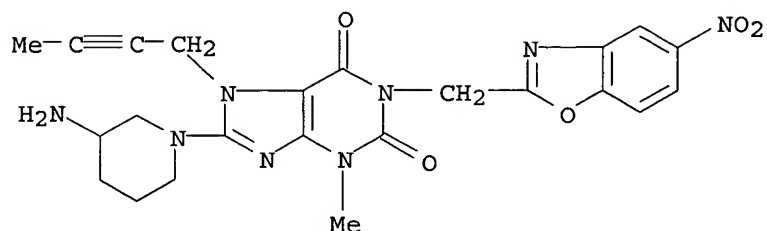


RN 668271-26-9 CAPLUS
 CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(5-nitro-2-benzoxazolyl)methyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668271-25-8

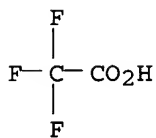
CMF C23 H24 N8 O5



CM 2

CRN 76-05-1

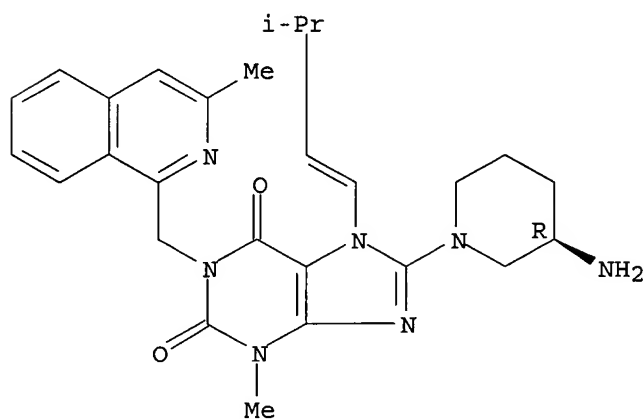
CMF C2 H F3 O2



RN 668271-27-0 CAPLUS

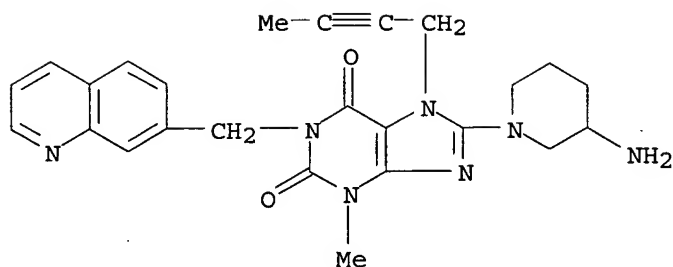
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-3,7-dihydro-3-methyl-7-(3-methyl-1-butenyl)-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



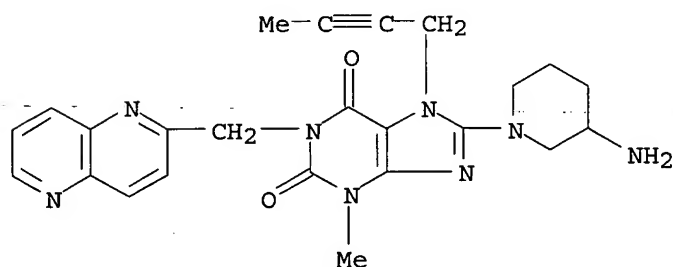
RN 668271-28-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(7-quinolinylmethyl)- (9CI) (CA INDEX NAME)



RN 668271-29-2 CAPLUS

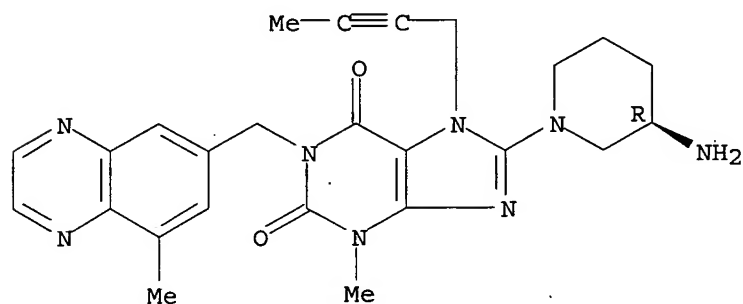
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(1,5-naphthyridin-2-ylmethyl)- (9CI) (CA INDEX NAME)



RN 668271-30-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(8-methyl-6-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)

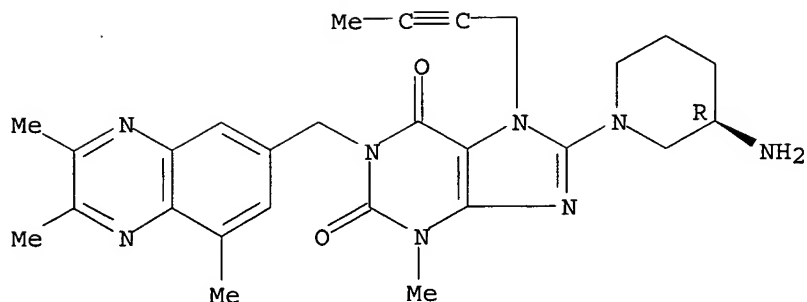
Absolute stereochemistry.



RN 668271-31-6 CAPLUS

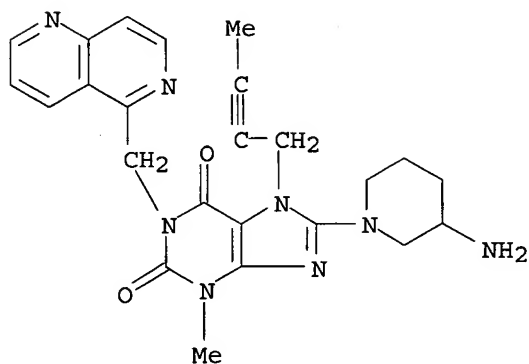
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(2,3,8-trimethyl-6-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



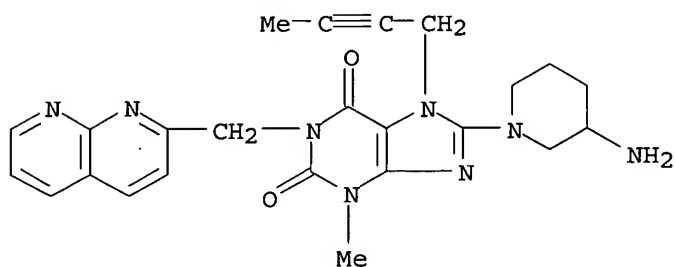
RN 668271-32-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(1,6-naphthyridin-5-ylmethyl)- (9CI) (CA INDEX NAME)



RN 668271-33-8 CAPLUS

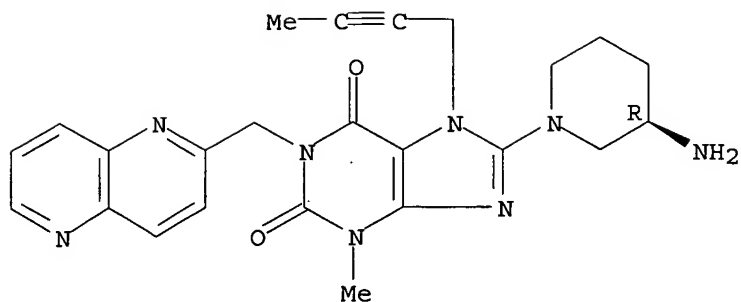
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(1,8-naphthyridin-2-ylmethyl)- (9CI) (CA INDEX NAME)



RN 668271-35-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(1,5-naphthyridin-2-ylmethyl)- (9CI) (CA INDEX NAME)

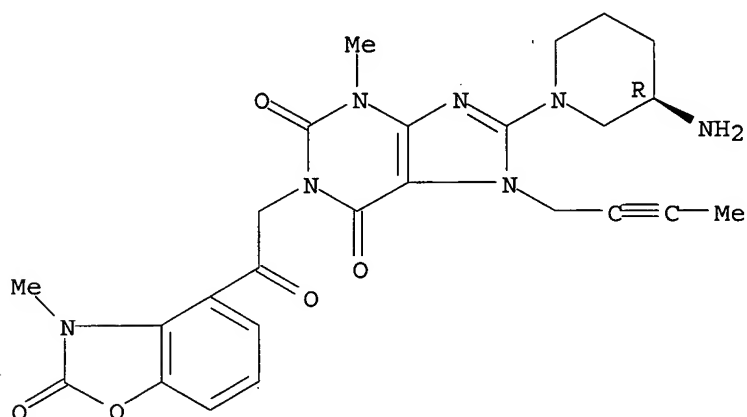
Absolute stereochemistry.



RN 668271-36-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-1-[2-(2,3-dihydro-3-methyl-2-oxo-4-benzoxazolyl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

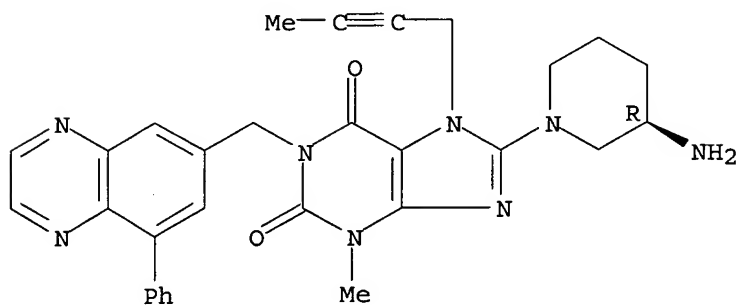
Absolute stereochemistry.



RN 668271-37-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(8-phenyl-6-quinoxaliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

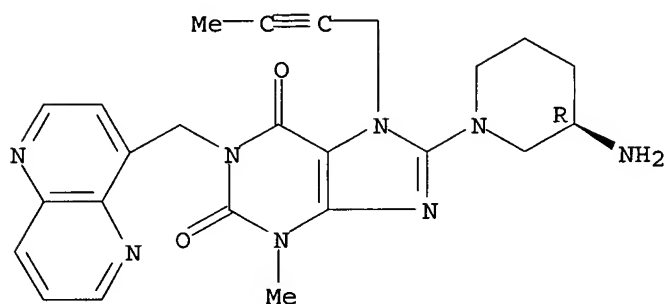


RN 668271-38-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-

dihydro-3-methyl-1-(1,5-naphthyridin-4-ylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 668271-44-1 CAPLUS

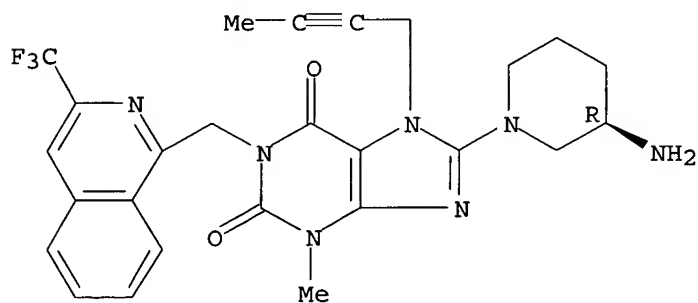
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[3-(trifluoromethyl)-1-isoquinolinyl]methyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668271-43-0

CMF C26 H26 F3 N7 O2

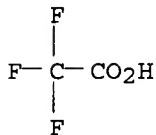
Absolute stereochemistry.



CM 2

CRN 76-05-1

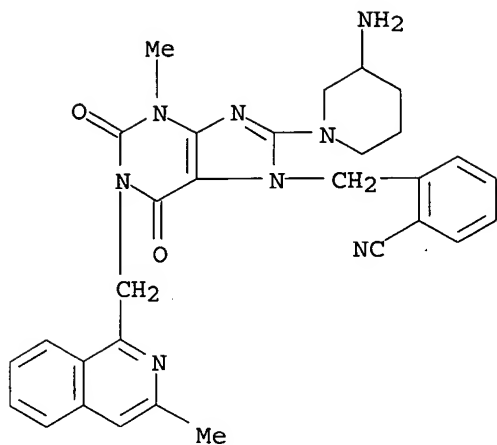
CMF C2 H F3 O2



RN 668271-45-2 CAPLUS

CN Benzonitrile, 2-[[8-(3-amino-1-piperidinyl)-1,2,3,6-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-7H-purin-7-yl]methyl]- (9CI)

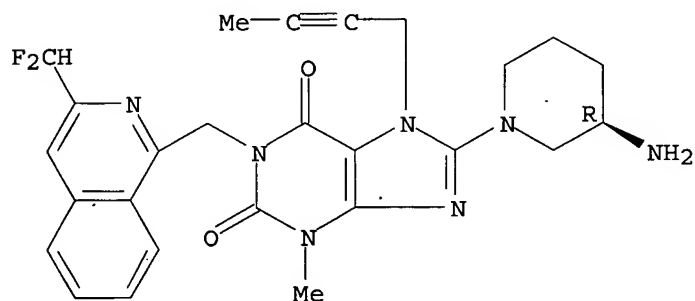
(CA INDEX NAME)



RN 668271-46-3 CAPLUS

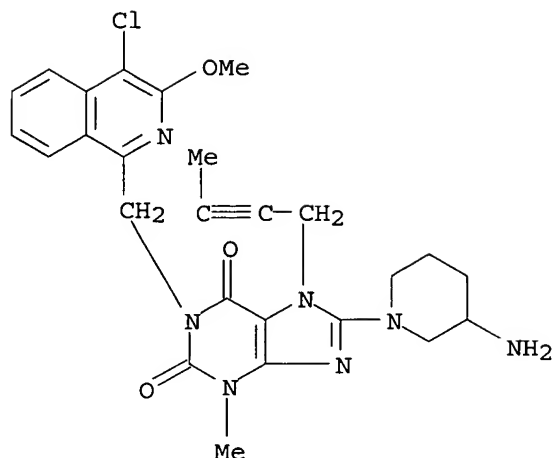
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-1-[[3-(difluoromethyl)-1-isoquinolinyl]methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



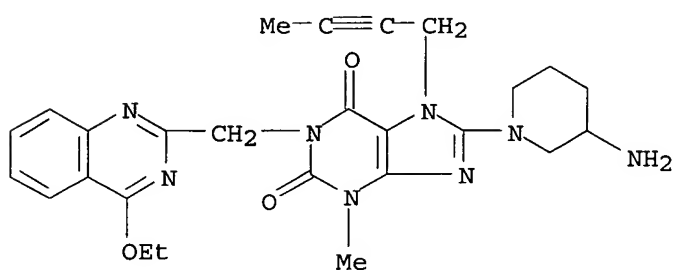
RN 668271-47-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(4-chloro-3-methoxy-1-isoquinolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



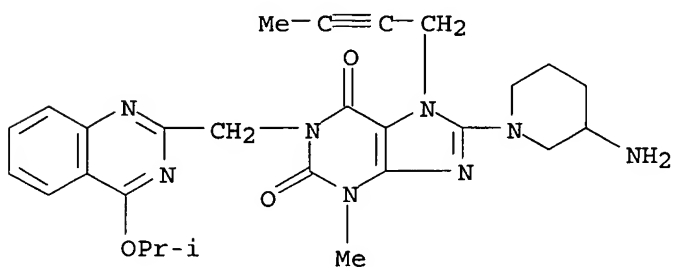
RN 668271-48-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(4-ethoxy-2-quinazolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



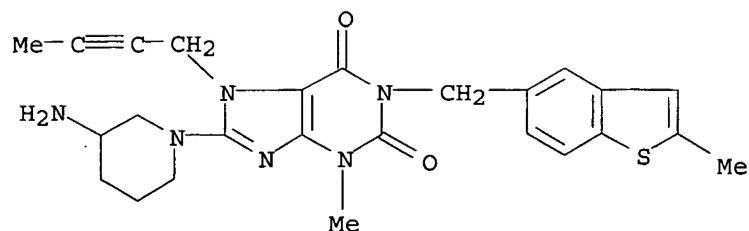
RN 668271-49-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[[4-(1-methylethoxy)-2-quinazolinyl]methyl]- (9CI) (CA INDEX NAME)



RN 668271-50-9 CAPLUS

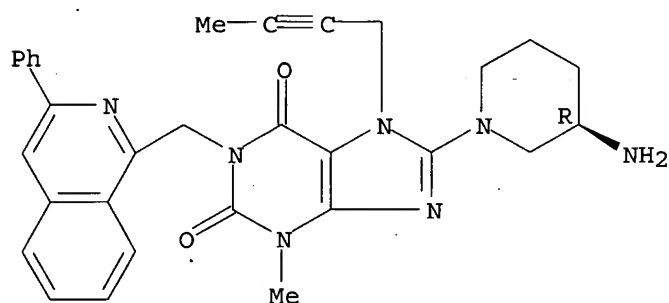
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(2-methylbenzo[b]thien-5-yl)methyl]- (9CI) (CA INDEX NAME)



RN 668271-51-0 CAPLUS

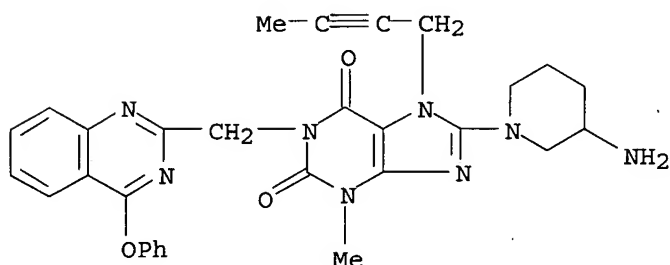
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-phenyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



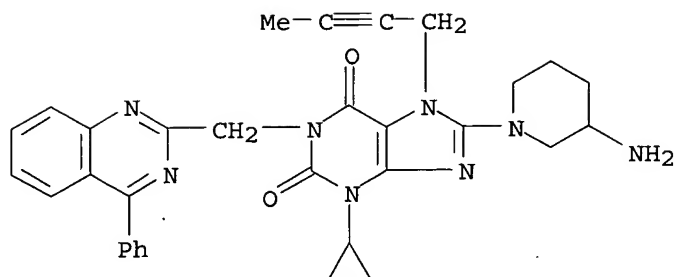
RN 668271-52-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-phenoxy-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)



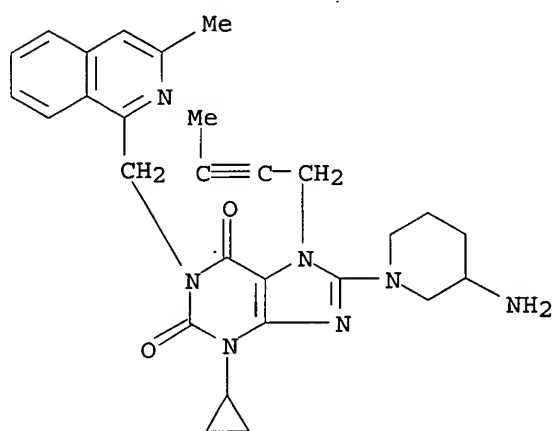
RN 668271-53-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3-cyclopropyl-3,7-dihydro-1-[(4-phenyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)



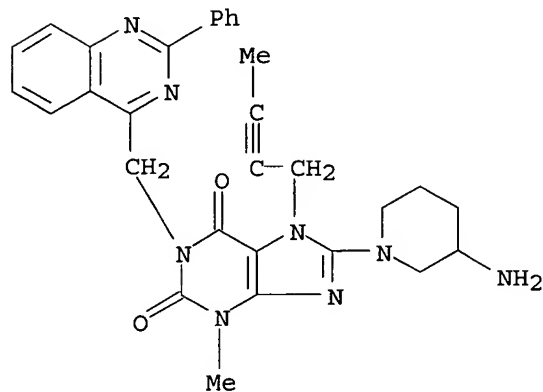
RN 668271-54-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3-cyclopropyl-3,7-dihydro-1-[(3-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)



RN 668271-55-4 CAPLUS

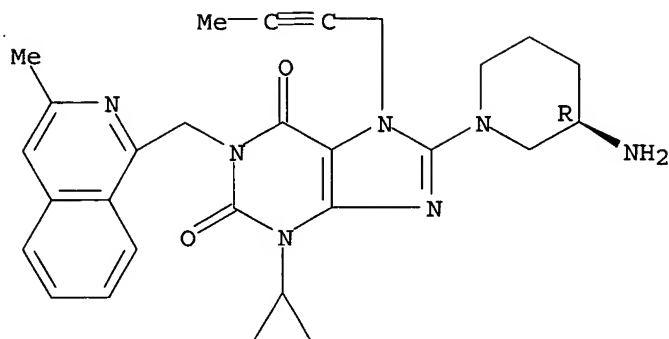
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(2-phenyl-4-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)



RN 668271-62-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3-cyclopropyl-3,7-dihydro-1-[(3-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

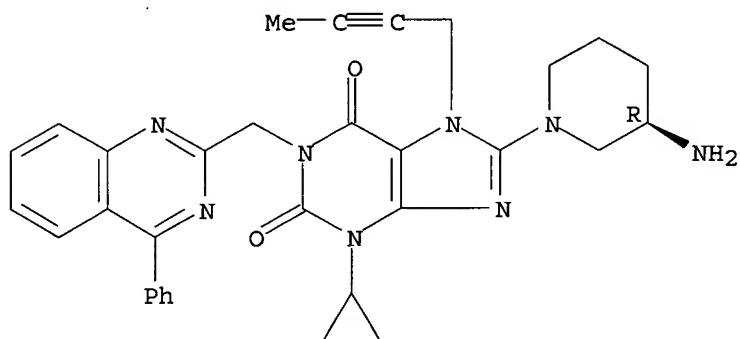
Absolute stereochemistry.



RN 668271-63-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3-cyclopropyl-3,7-dihydro-1-[(4-phenyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

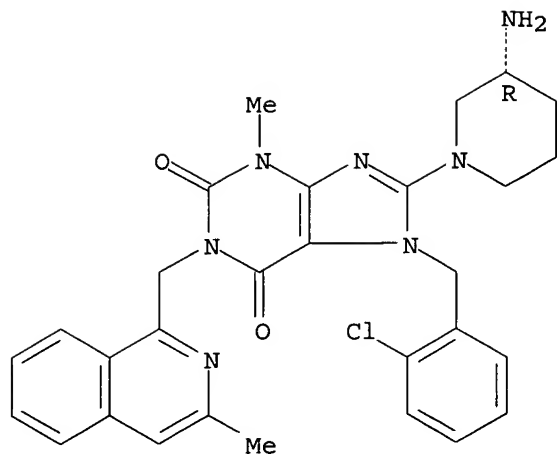
Absolute stereochemistry.



RN 668271-69-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-[(2-chlorophenyl)methyl]-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

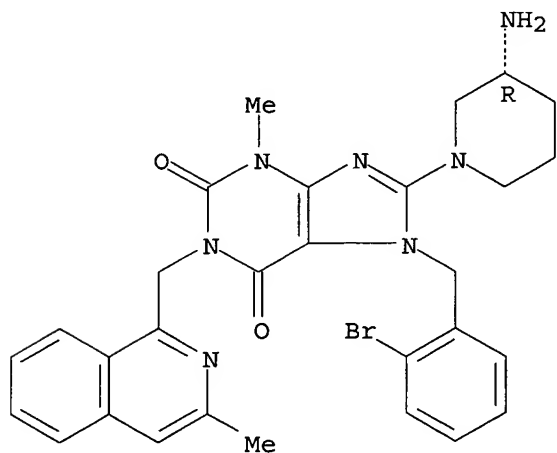
Absolute stereochemistry.



RN 668271-70-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-[(2-bromophenyl)methyl]-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



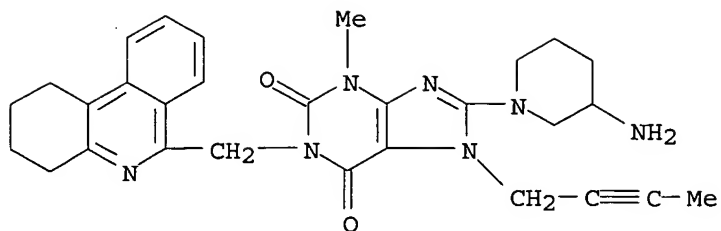
RN 668271-72-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(1,2,3,4-tetrahydro-6-phenanthridinyl)methyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 668271-71-4

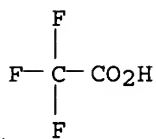
CMF C29 H33 N7 O2



CM 2

CRN 76-05-1

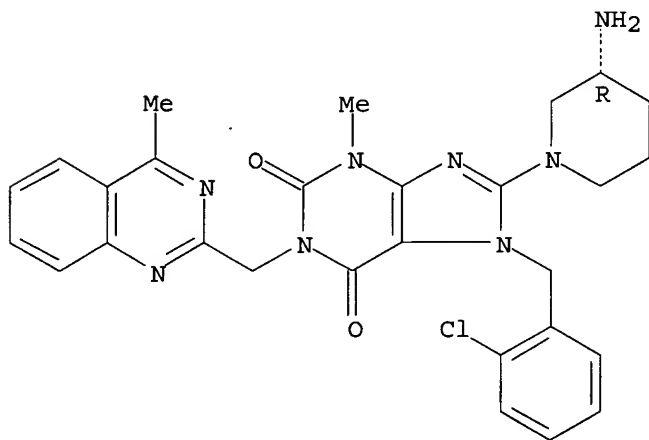
CMF C2 H F3 O2



RN 668271-74-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-[(2-chlorophenyl)methyl]-3,7-dihydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

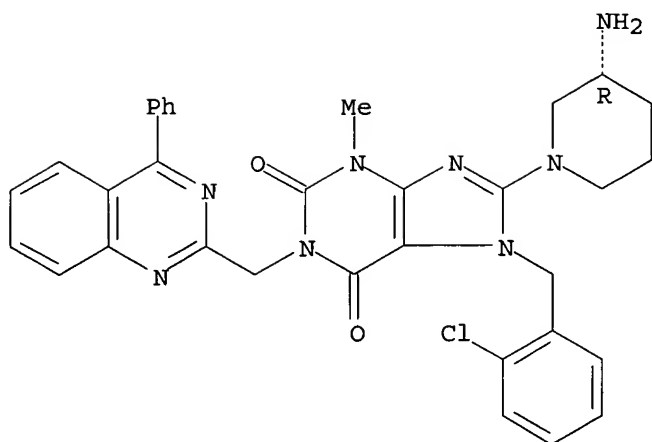
Absolute stereochemistry.



RN 668271-75-8 CAPLUS

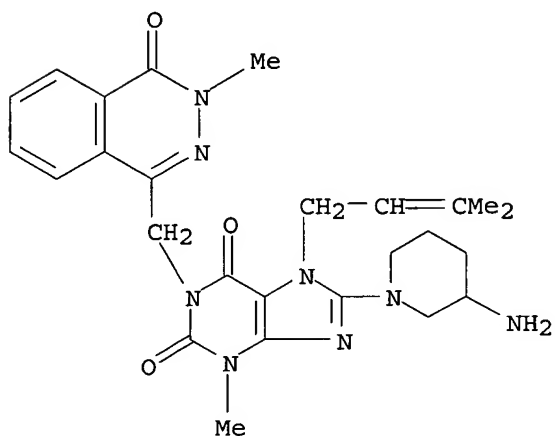
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-[(2-chlorophenyl)methyl]-3,7-dihydro-3-methyl-1-[(4-phenyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



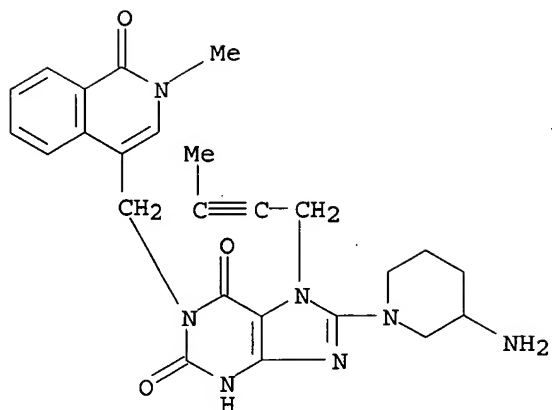
RN 668271-81-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(3,4-dihydro-3-methyl-4-oxo-1-phthalazinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-(9CI) (CA INDEX NAME)



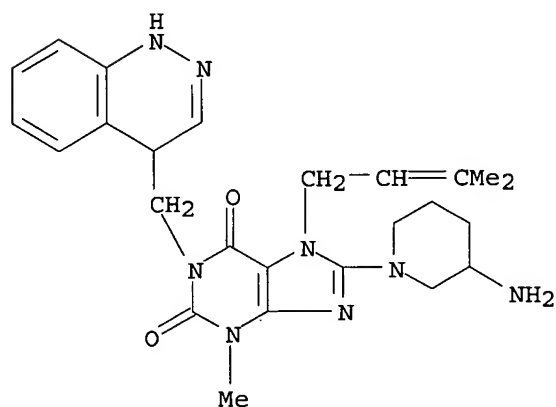
RN 668271-92-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butenyl)-1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-3,7-dihydro- (9CI) (CA INDEX NAME)



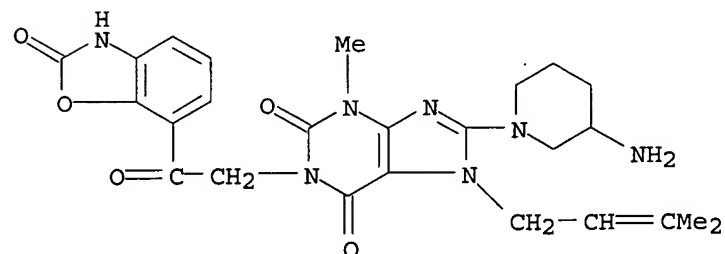
RN 668276-56-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(1,4-dihydro-4-cinnolinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 668276-93-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(2,3-dihydro-2-oxo-7-benzoxazolyl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



IT 454711-14-9P 454712-88-0P 668272-34-2P
 668272-37-5P 668272-38-6P 668272-39-7P
 668272-40-0P 668272-41-1P 668272-44-4P

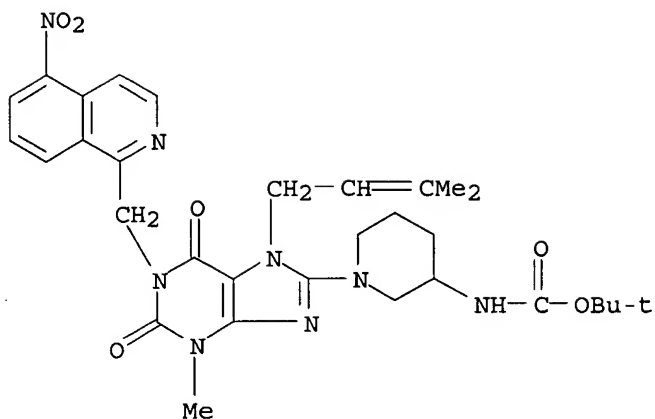
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668276-01-5P 668276-02-6P 668276-03-7P
668276-14-0P 668276-15-1P 668276-17-3P
668276-21-9P 668276-36-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation of aminopiperidinylxanthines as dipeptidylpeptidase-IV
inhibitors)

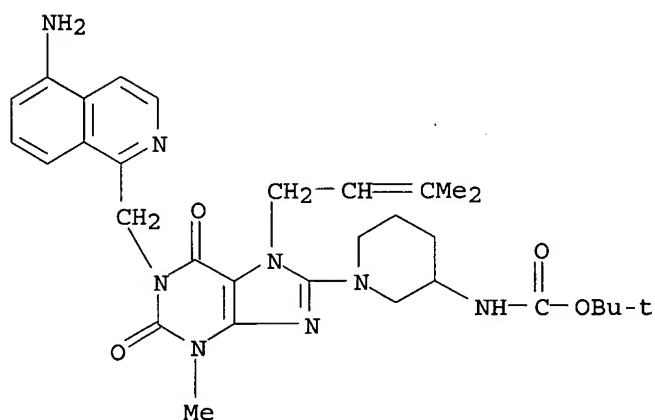
RN 454711-14-9 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-1-
[(5-nitro-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-
, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



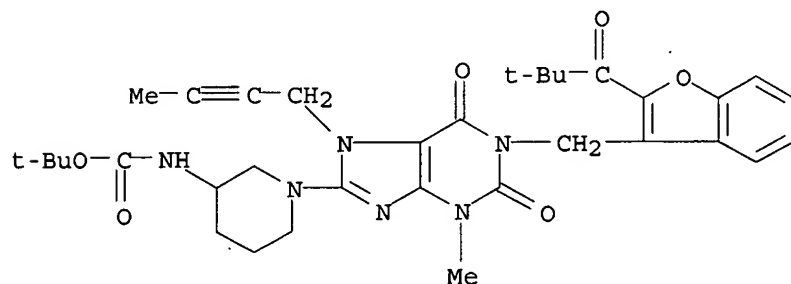
RN 454712-88-0 CAPLUS

CN Carbamic acid, [1-[1-[(5-amino-1-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME).



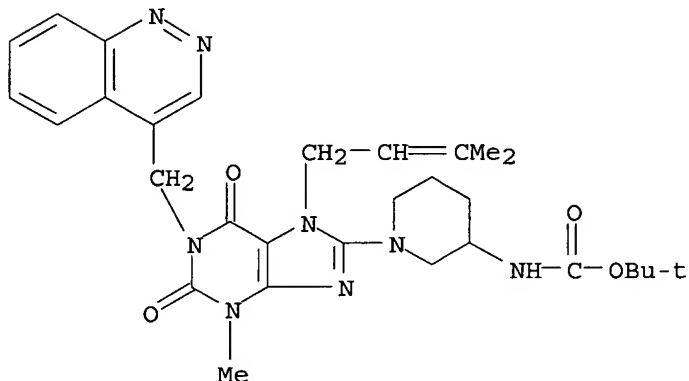
RN 668272-34-2 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[[2-(2,2-dimethyl-1-oxopropyl)-3-benzofuranyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



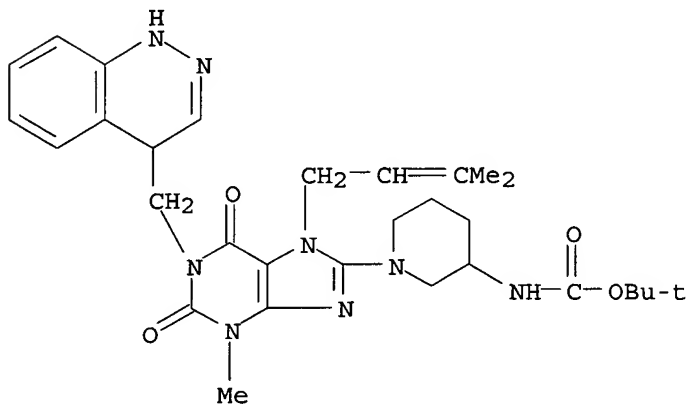
RN 668272-37-5 CAPLUS

CN Carbamic acid, [1-[1-(4-cinnolinylmethyl)-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



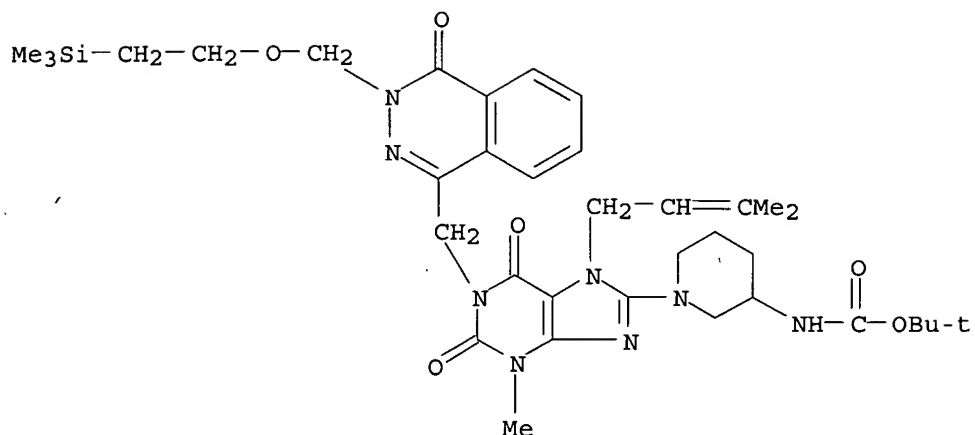
RN 668272-38-6 CAPLUS

CN Carbamic acid, [1-[1-[(1,4-dihydro-4-cinnolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



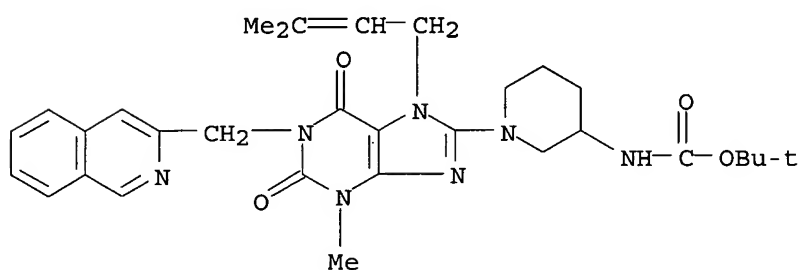
RN 668272-39-7 CAPLUS

CN Carbamic acid, [1-[1-[[3,4-dihydro-4-oxo-3-[[2-(trimethylsilyl)ethoxy]methyl]-1-phthalazinyl]methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



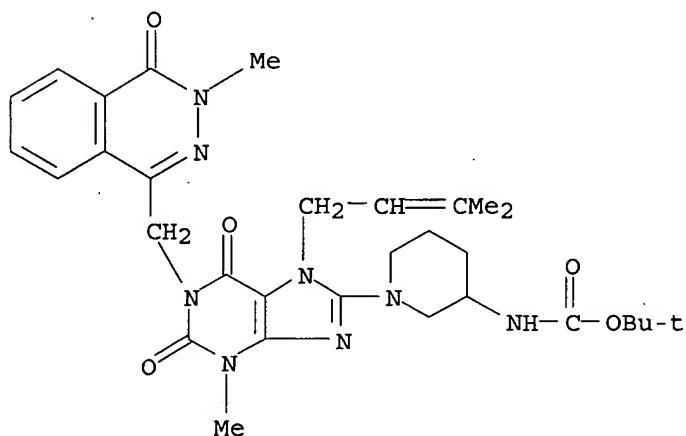
RN 668272-40-0 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-1-(3-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



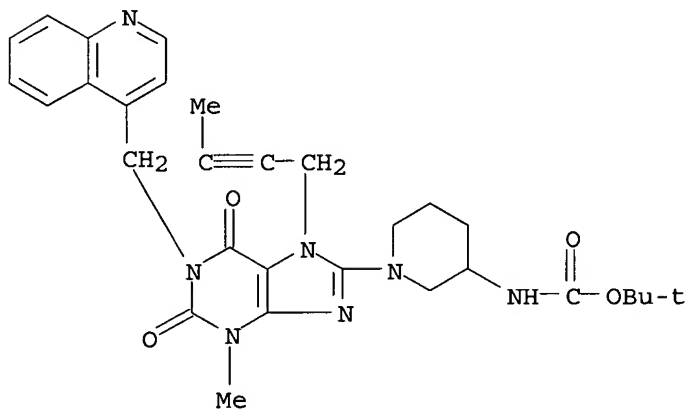
RN 668272-41-1 CAPLUS

CN Carbamic acid, [1-[1-[(3,4-dihydro-3-methyl-4-oxo-1-phthalazinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



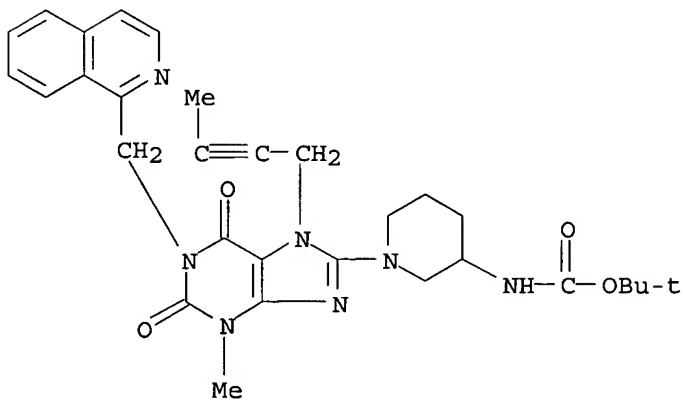
RN 668272-44-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(4-quinolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-45-5 CAPLUS

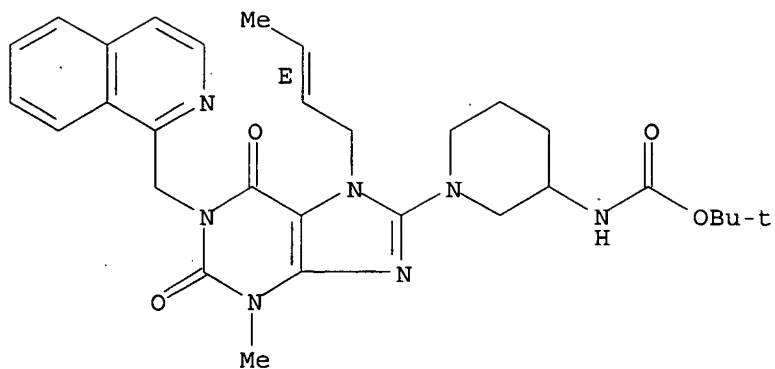
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-1-(1-isoquinolinylmethyl)-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-46-6 CAPLUS

CN Carbamic acid, [1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-1-(1-isoquinolinylmethyl)-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

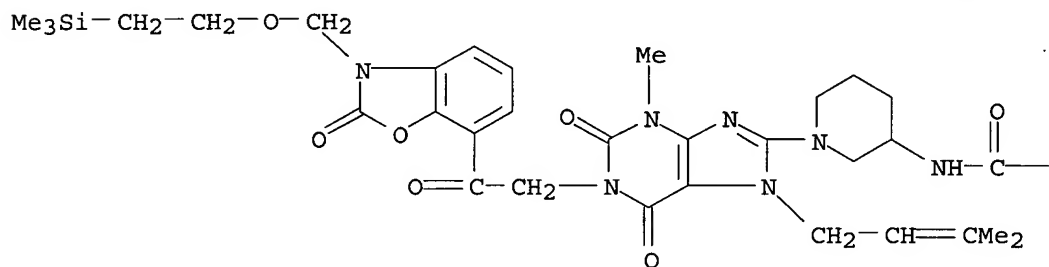
Double bond geometry as shown.



RN 668272-68-2 CAPLUS

CN Carbamic acid, [1-[1-[2-[2,3-dihydro-2-oxo-3-[[2-(trimethylsilyl)ethoxy]methyl]-7-benzoxazolyl]-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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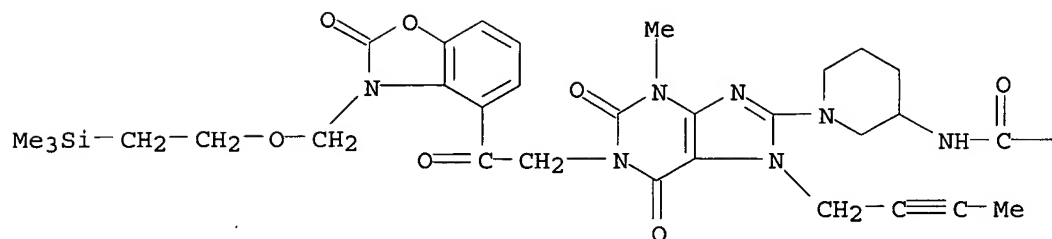
PAGE 1-B

— OBU-t

RN 668272-71-7 CAPLUS

CN Carbamic acid, [1-[7-(2-butenyl)-1-[2-[2,3-dihydro-2-oxo-3-[[2-(trimethylsilyl)ethoxy]methyl]-4-benzoxazolyl]-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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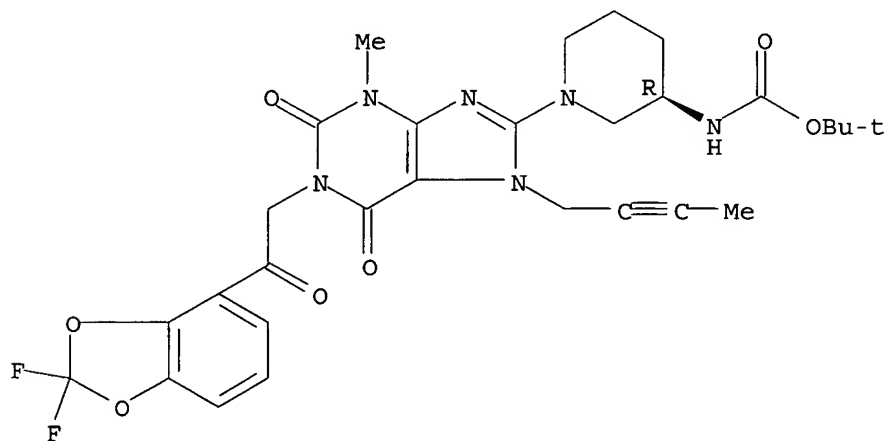
PAGE 1-B

—OBu-t

RN 668272-72-8 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-1-[2-(2,2-difluoro-1,3-benzodioxol-4-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

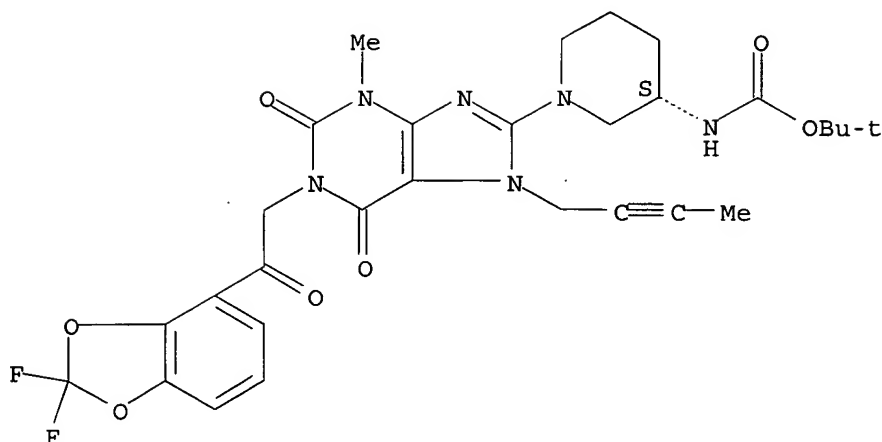
Absolute stereochemistry.



RN 668272-73-9 CAPLUS

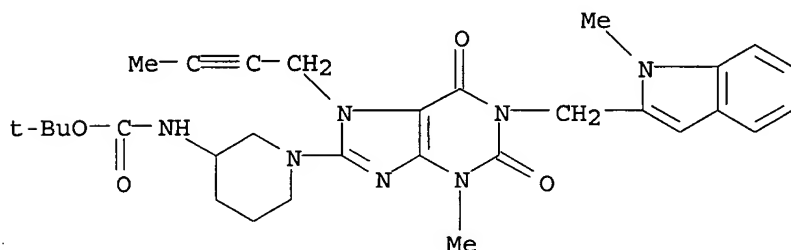
CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-1-[2-(2,2-difluoro-1,3-benzodioxol-4-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



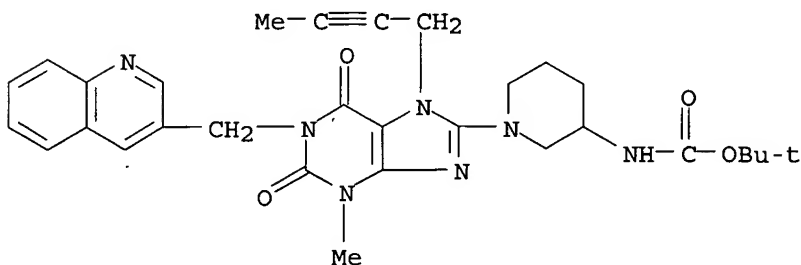
RN 668272-74-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(1-methyl-1H-indol-2-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



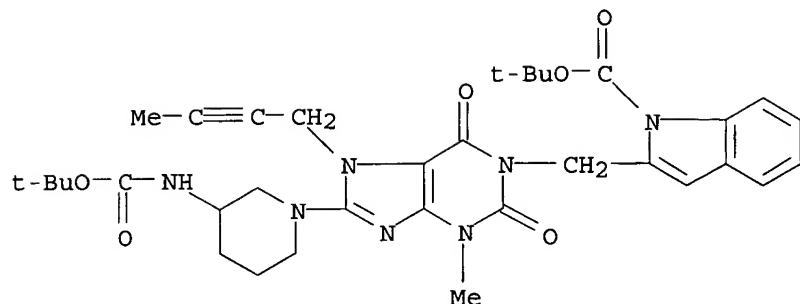
RN 668272-75-1 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(3-quinolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-76-2 CAPLUS

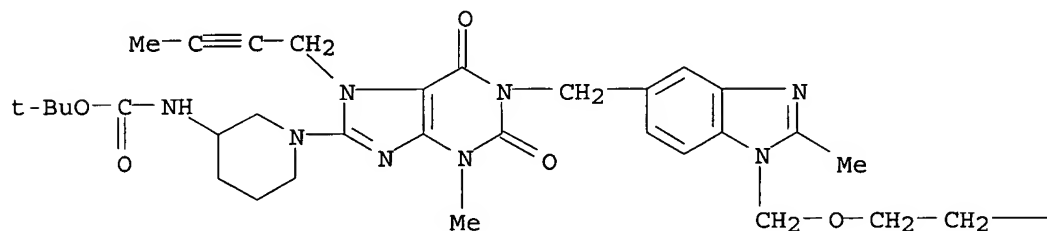
CN 1H-Indole-1-carboxylic acid, 2-[[7-(2-butynyl)-8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-77-3 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[[2-methyl-1-[[2-(trimethylsilyl)ethoxy]methyl]-1H-benzimidazol-5-yl]methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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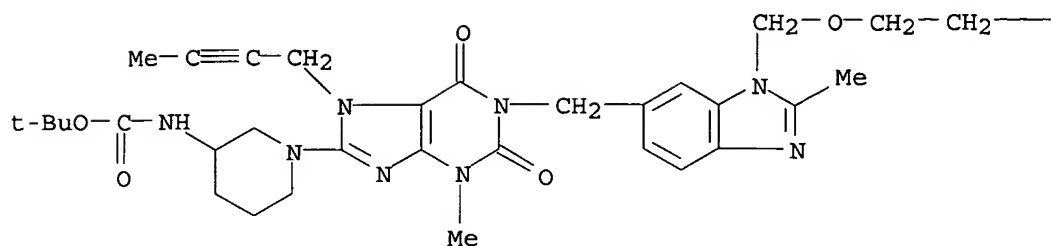
PAGE 1-B

— SiMe₃

RN 668272-78-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[[2-methyl-1-[[2-(trimethylsilyl)ethoxy]methyl]-1H-benzimidazol-6-yl]methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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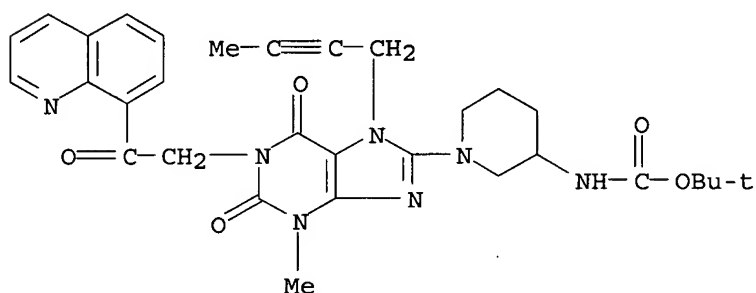


PAGE 1-B

—SiMe₃

RN 668272-79-5 CAPLUS

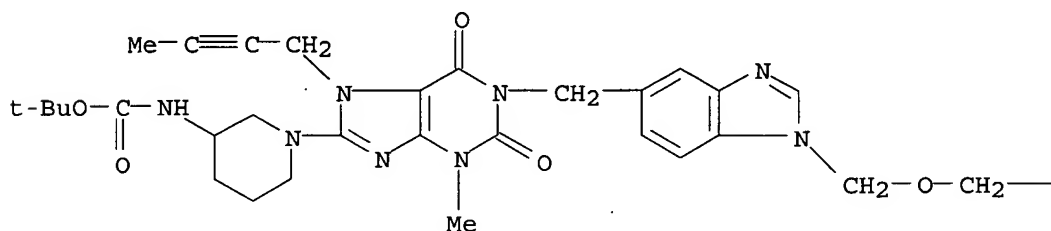
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[2-oxo-2-(8-quinolinyl)ethyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-80-8 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[[1-[[2-(trimethylsilyl)ethoxy]methyl]-1H-benzimidazol-5-yl]methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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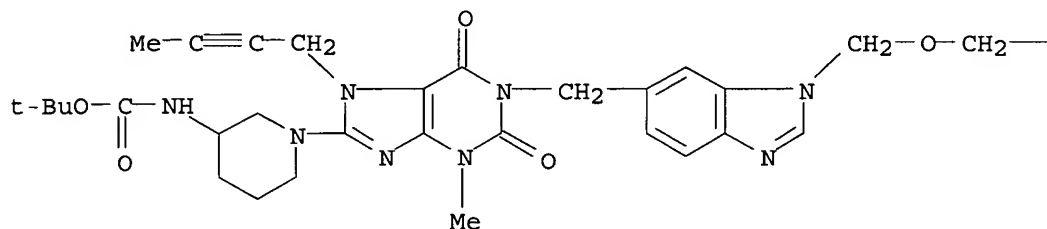
PAGE 1-B

$$-\text{CH}_2-\text{SiMe}_3$$

RN 668272-81-9 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-
[[1-[2-(trimethylsilyl)ethoxy]methyl]-1H-benzimidazol-6-yl]methyl]-1H-
purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX
NAME)

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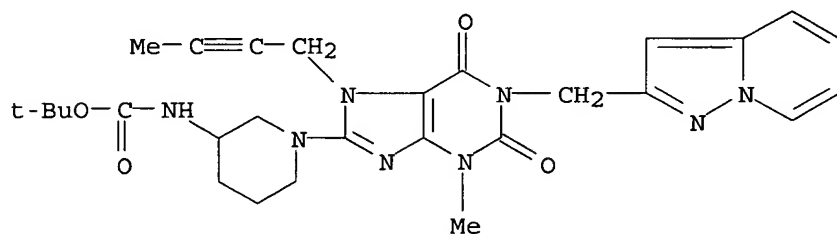


PAGE 1-B

$$-\text{CH}_2-\text{SiMe}_3$$

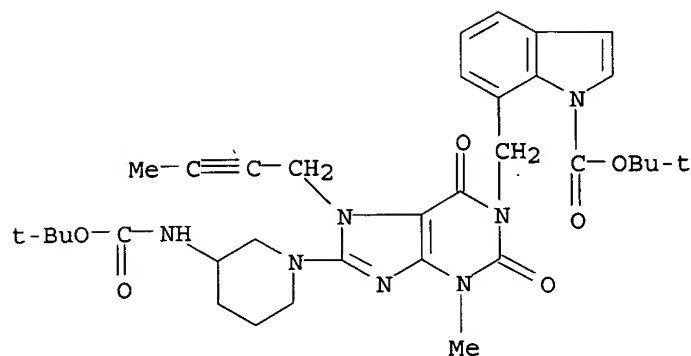
RN 668272-82-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(pyrazolo[1,5-a]pyridin-2-yl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-84-2 CAPLUS

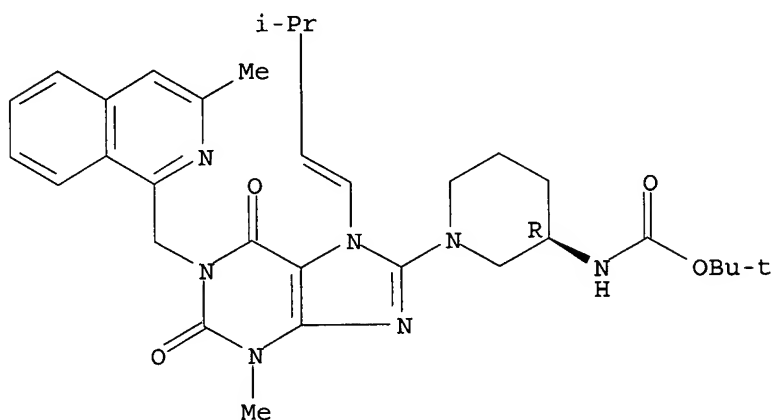
CN 1H-Indole-1-carboxylic acid, 7-[[7-(2-butylnyl)-8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-85-3 CAPLUS

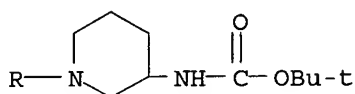
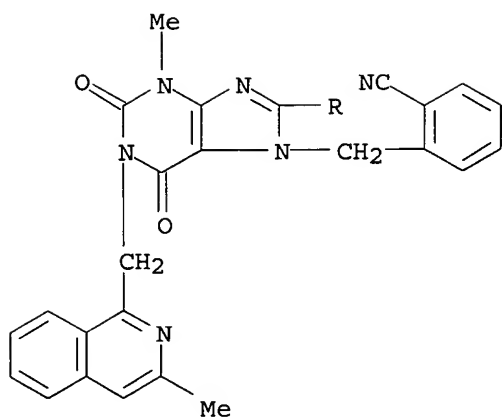
CN Carbamic acid, [(3R)-1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-1-butenyl)-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 668272-88-6 CAPLUS

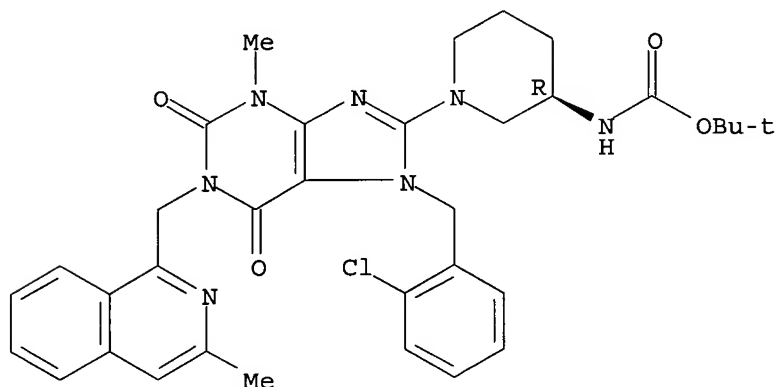
CN Carbamic acid, [1-[7-[(2-cyanophenyl)methyl]-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-91-1 CAPLUS

CN Carbamic acid, [(3R)-1-[7-[(2-chlorophenyl)methyl]-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

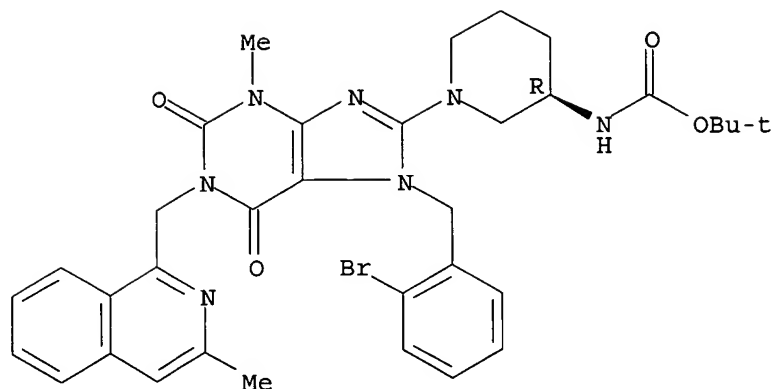
Absolute stereochemistry.



RN 668272-92-2 CAPLUS

CN Carbamic acid, [(3R)-1-[7-[(2-bromophenyl)methyl]-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

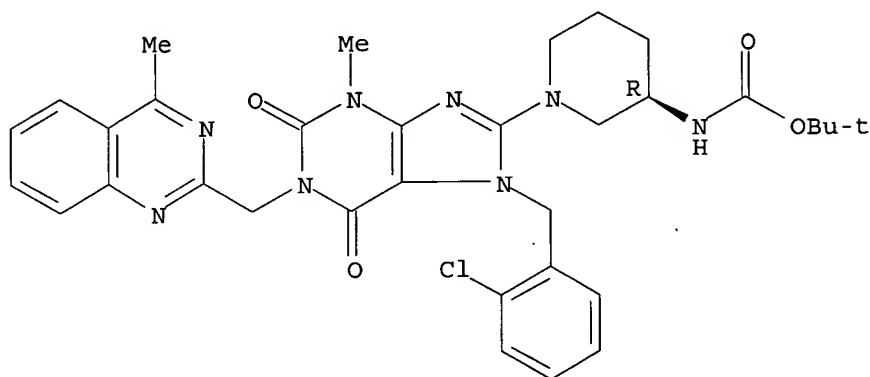
Absolute stereochemistry.



RN 668272-93-3 CAPLUS

CN Carbamic acid, [(3R)-1-[7-[(2-chlorophenyl)methyl]-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

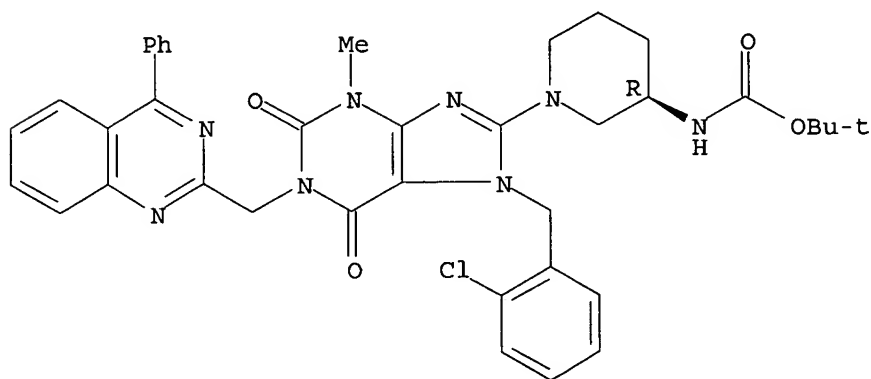
Absolute stereochemistry.



RN 668272-94-4 CAPLUS

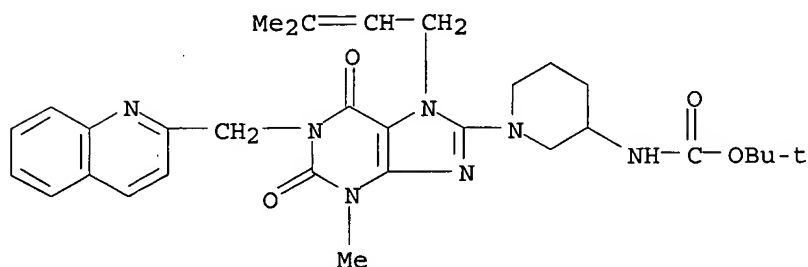
CN Carbamic acid, [(3R)-1-[7-[(2-chlorophenyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(4-phenyl-2-quinazolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



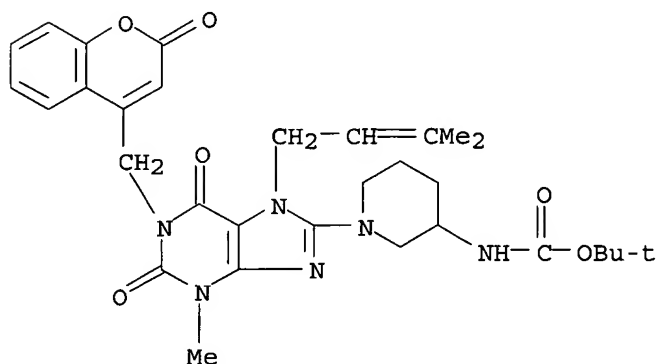
RN 668273-06-1 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1-(2-quinolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



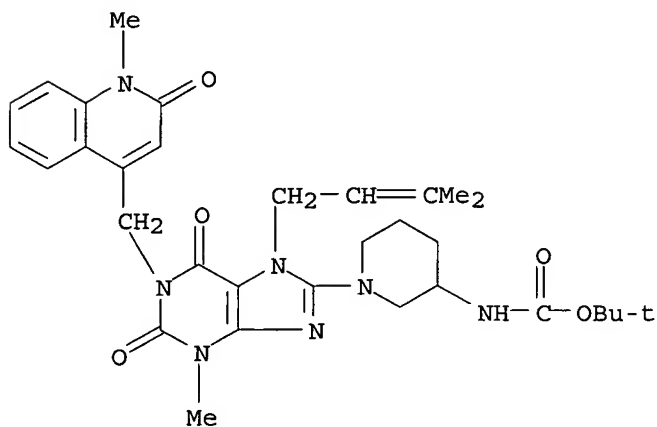
RN 668273-07-2 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1-[(2-oxo-2H-1-benzopyran-4-yl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



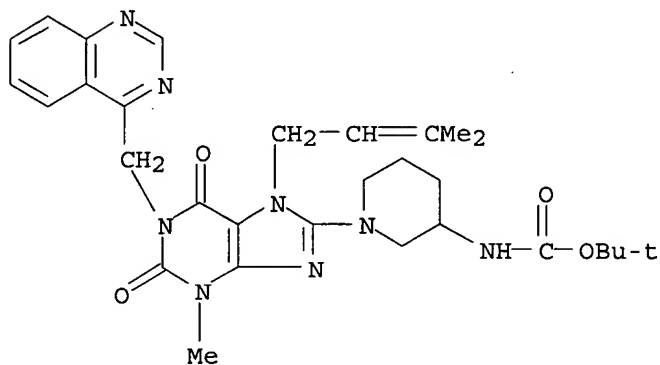
RN 668273-08-3 CAPLUS

CN Carbamic acid, [1-[1-[(1,2-dihydro-1-methyl-2-oxo-4-quinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



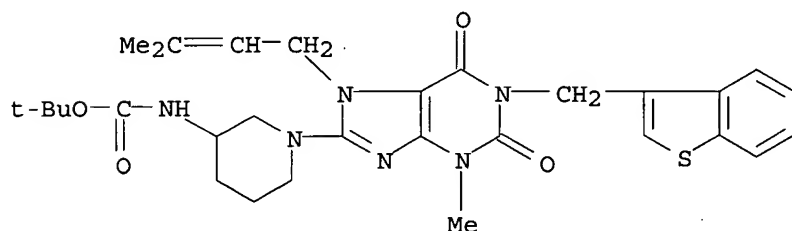
RN 668273-09-4 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1-(4-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



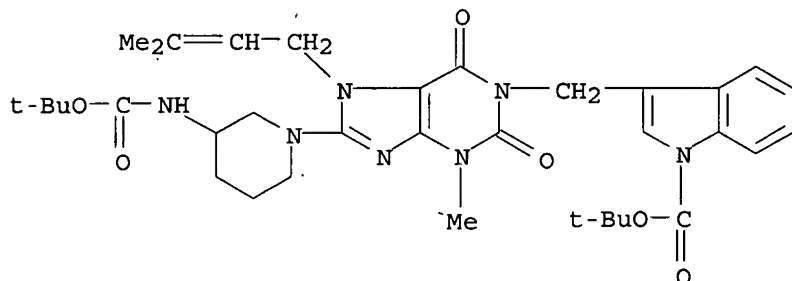
RN 668273-20-9 CAPLUS

CN Carbamic acid, [1-[1-(benzo[b]thien-3-ylmethyl)-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-21-0 CAPLUS

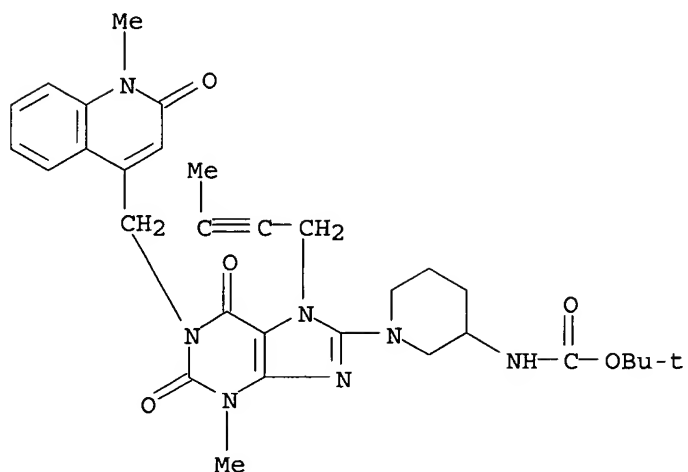
CN 1H-Indole-1-carboxylic acid, 3-[[8-[3-[[[(1,1-dimethylethoxy) carbonyl] amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-1-yl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-24-3 CAPLUS

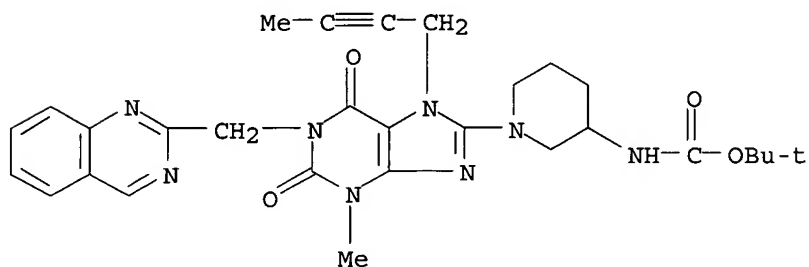
CN Carbamic acid, [1-[7-(2-butyrynyl)-1-[(1,2-dihydro-1-methyl-2-oxo-4-quinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-

piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



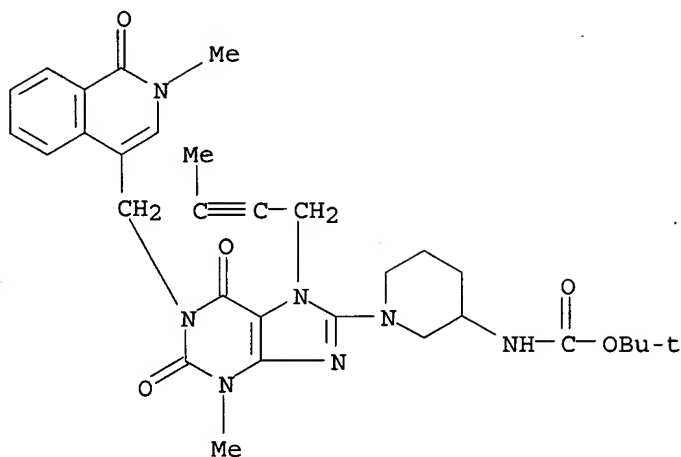
RN 668273-27-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



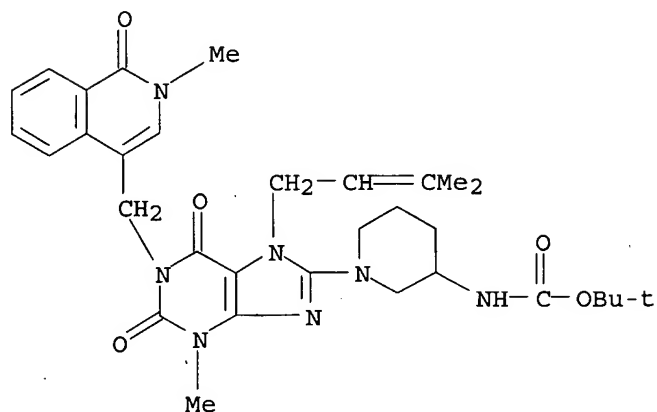
RN 668273-31-2 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



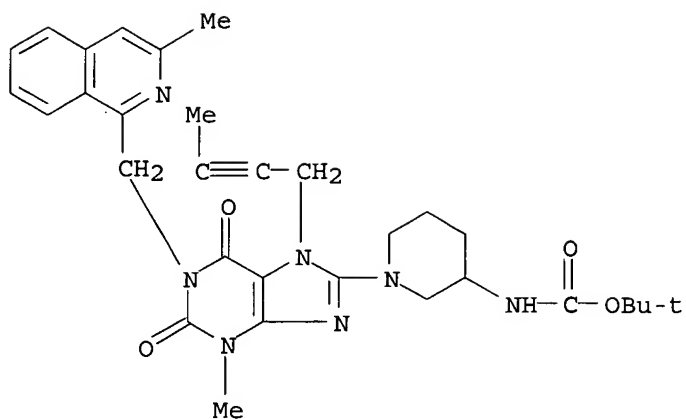
RN 668273-32-3 CAPLUS

CN Carbamic acid, [1-[1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



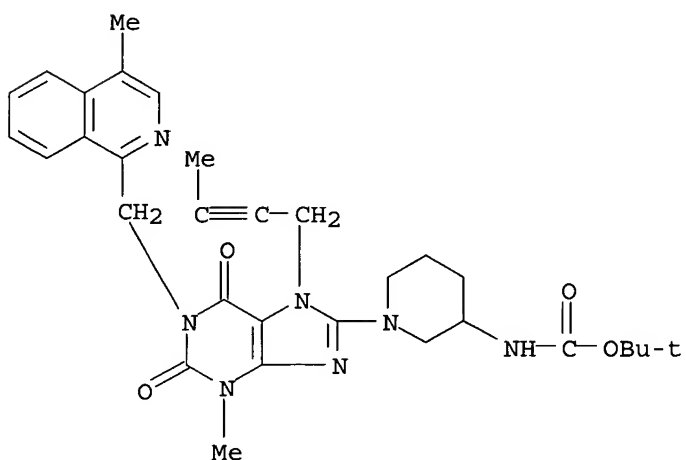
RN 668273-35-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butenyl)-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



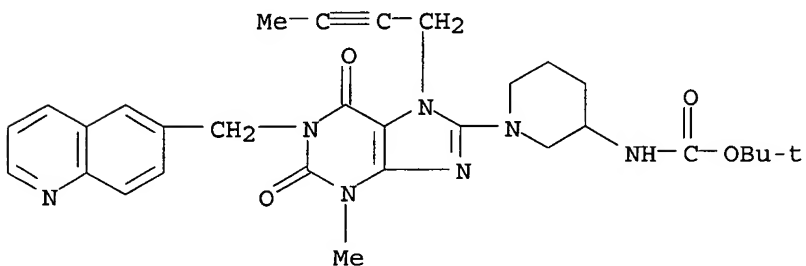
RN 668273-39-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



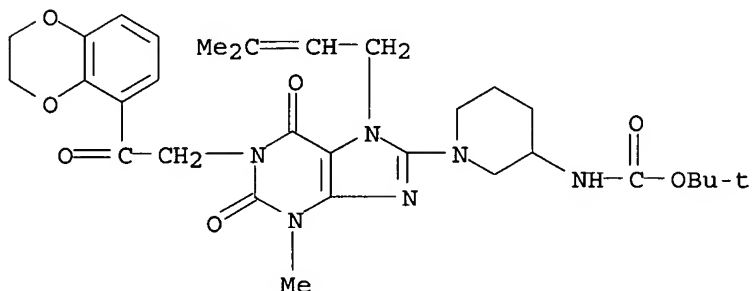
RN 668273-42-5 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(6-quinolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



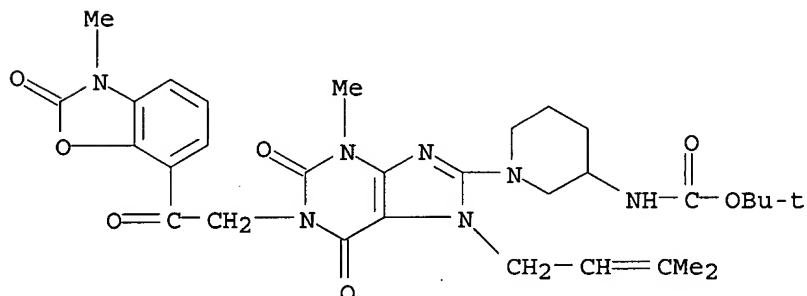
RN 668273-44-7 CAPLUS

CN Carbamic acid, [1-[1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



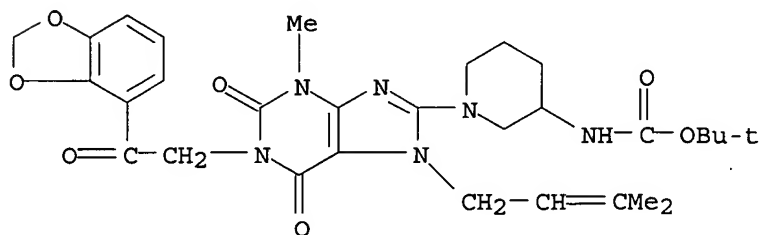
RN 668273-45-8 CAPLUS

CN Carbamic acid, [1-[1-[2-(2,3-dihydro-3-methyl-2-oxo-7-benzoxazolyl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-46-9 CAPLUS

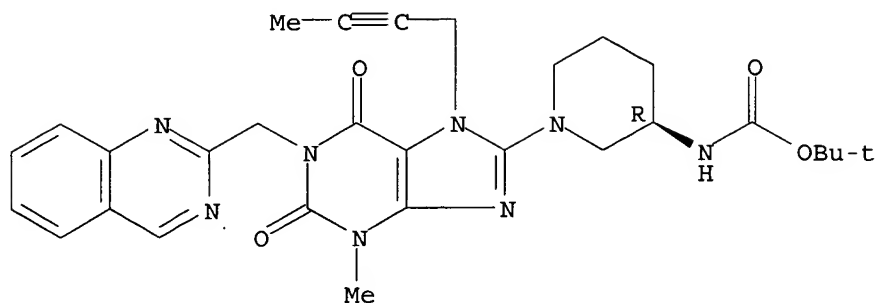
CN Carbamic acid, [1-[1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-47-0 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

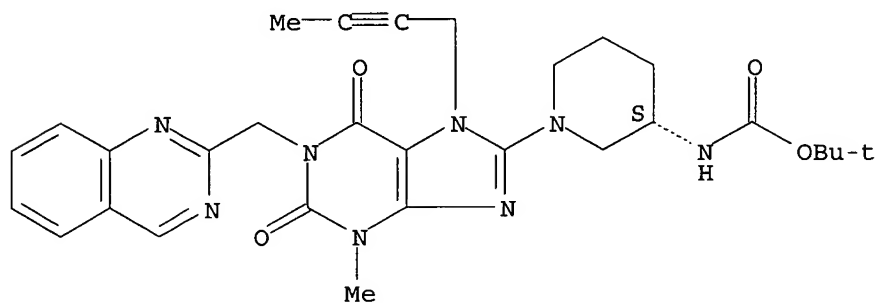
Absolute stereochemistry.



RN 668273-48-1 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

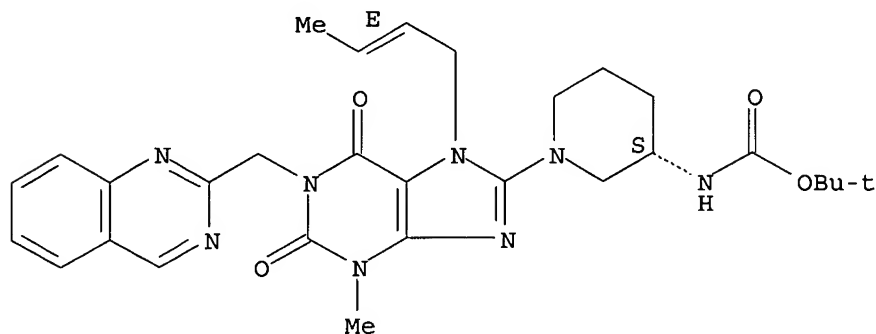
Absolute stereochemistry.



RN 668273-49-2 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

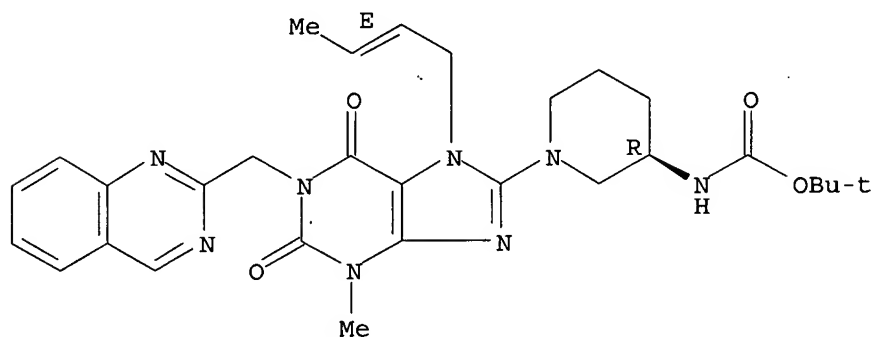
Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-50-5 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

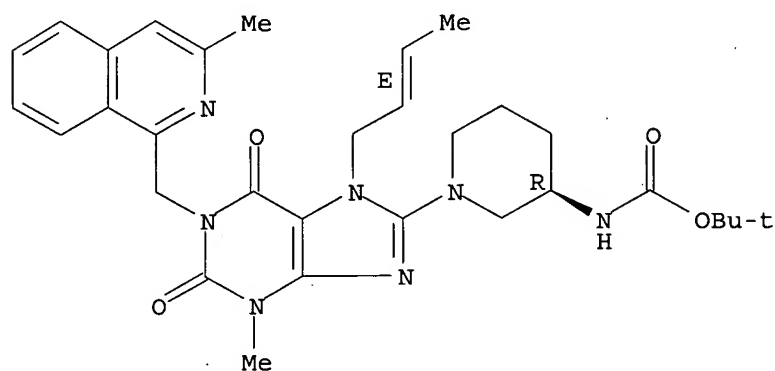
Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-51-6 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

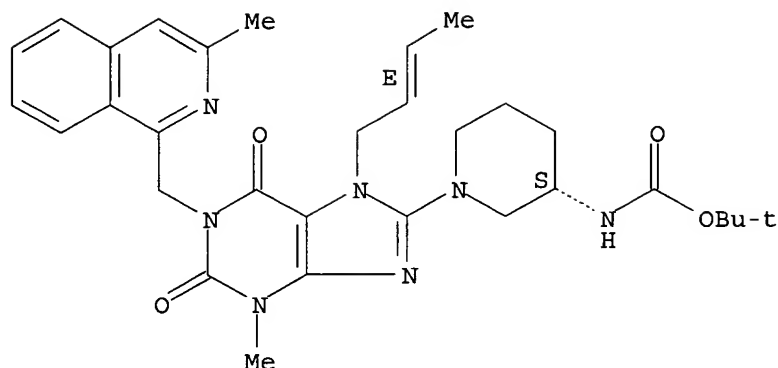
Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-52-7 CAPLUS

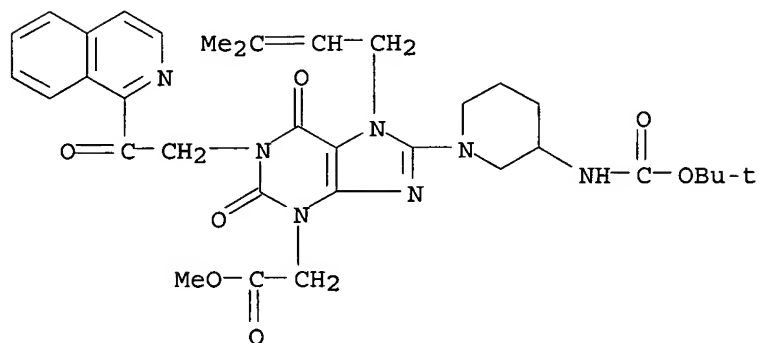
CN Carbamic acid, [(3S)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-56-1 CAPLUS

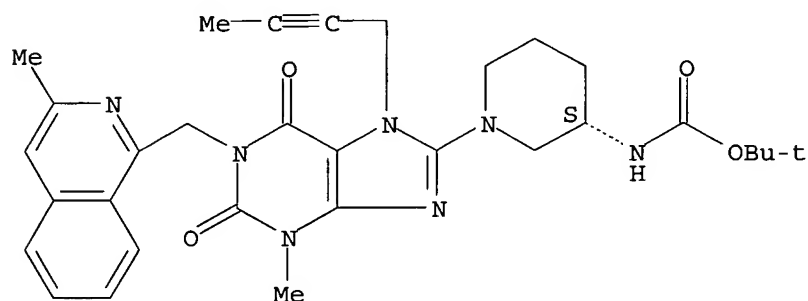
CN 3H-Purine-3-acetic acid, 8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-1,2,6,7-tetrahydro-1-[2-(1-isoquinolinyl)-2-oxoethyl]-7-(3-methyl-2-butenyl)-2,6-dioxo-, methyl ester (9CI) (CA INDEX NAME)



RN 668273-62-9 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

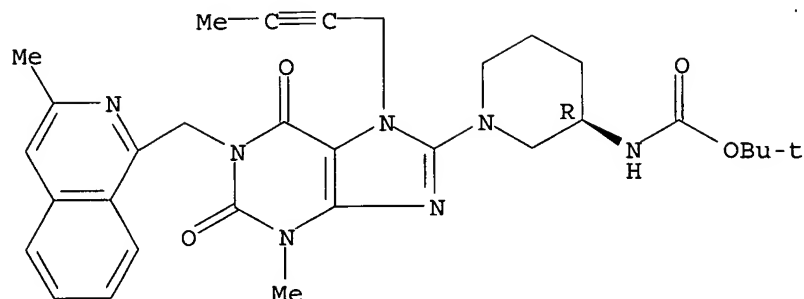
Absolute stereochemistry.



RN 668273-63-0 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

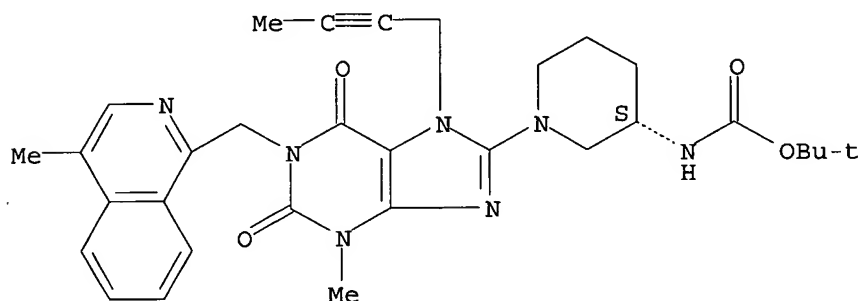
Absolute stereochemistry.



RN 668273-64-1 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

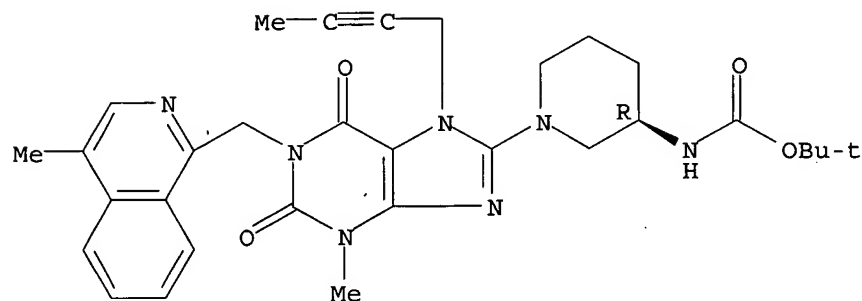
Absolute stereochemistry.



RN 668273-65-2 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

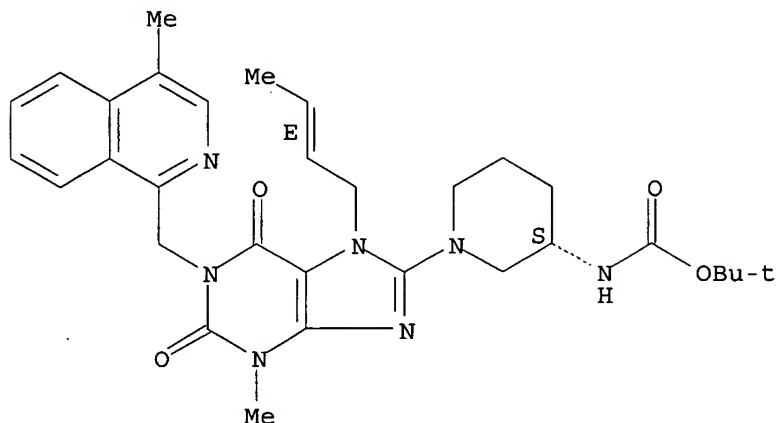


RN 668273-66-3 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

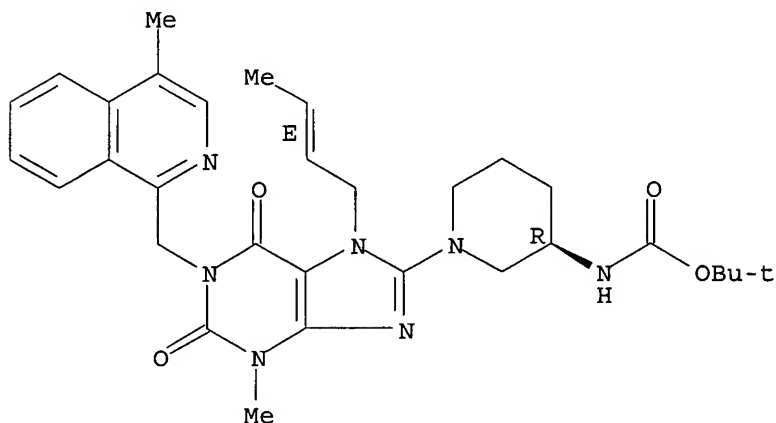
Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-67-4 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

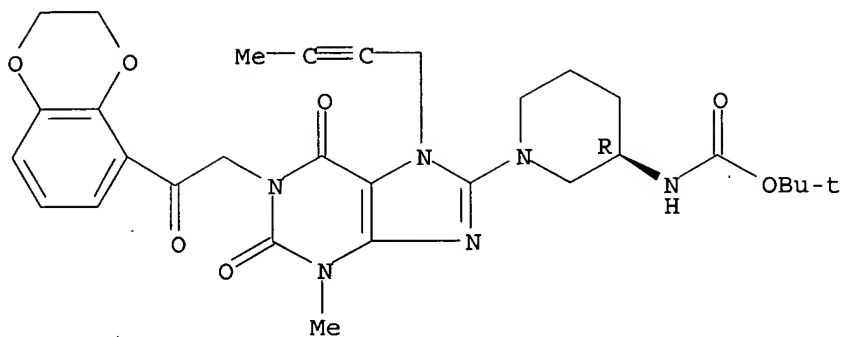
Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-68-5 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

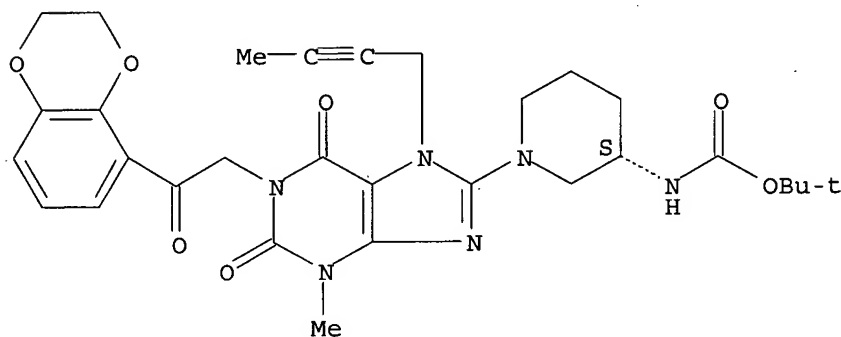
Absolute stereochemistry.



RN 668273-69-6 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

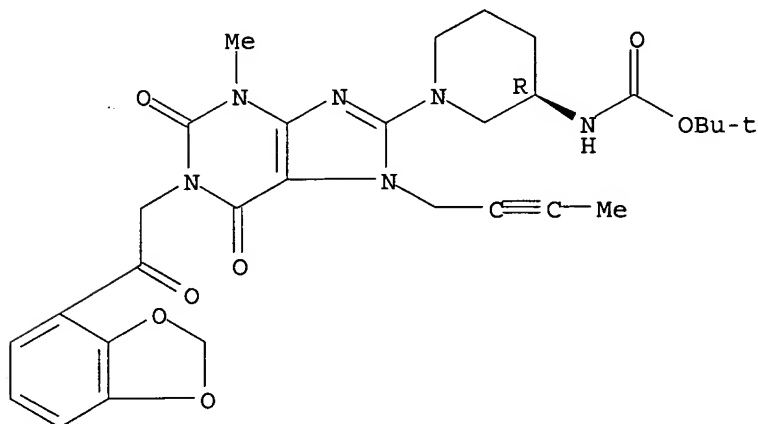
Absolute stereochemistry.



RN 668273-72-1 CAPLUS

CN Carbamic acid, [(3R)-1-[1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

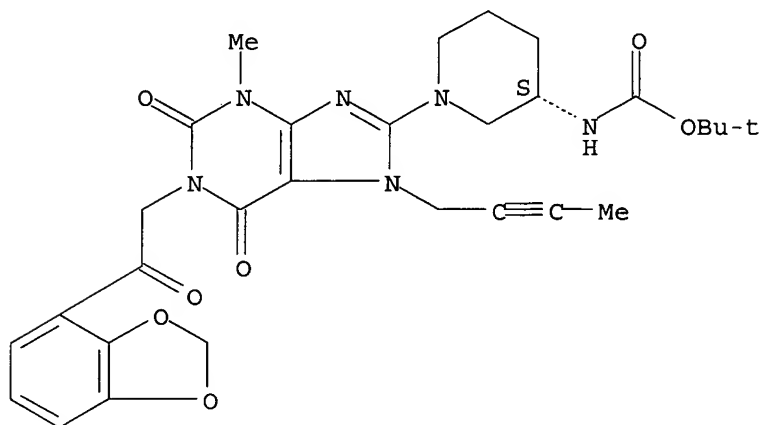
Absolute stereochemistry.



RN 668273-73-2 CAPLUS

CN Carbamic acid, [(3S)-1-[1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

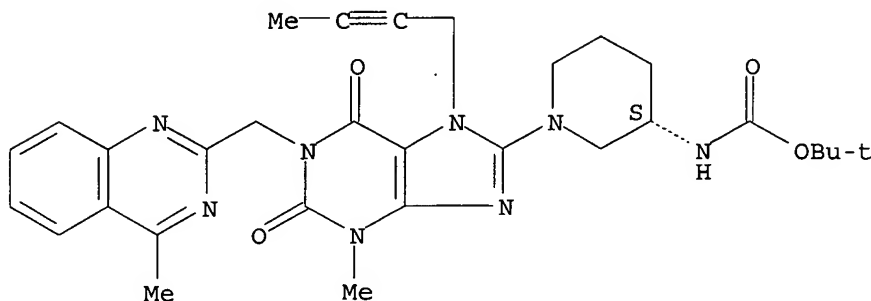
Absolute stereochemistry.



RN 668273-74-3 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

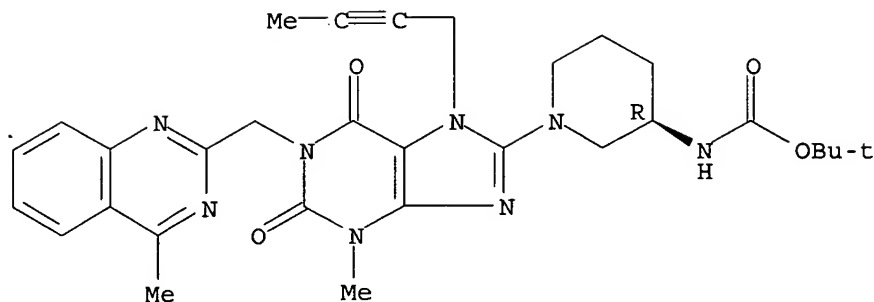
Absolute stereochemistry.



RN 668273-75-4 CAPLUS

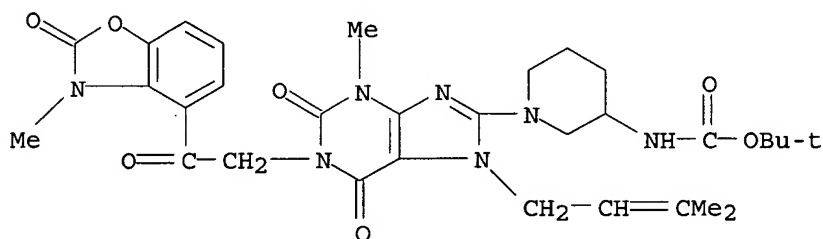
CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



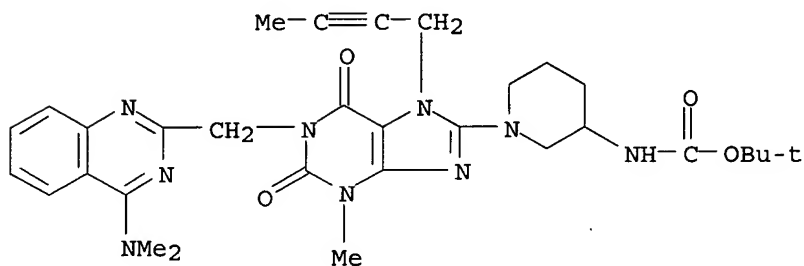
RN 668273-76-5 CAPLUS

CN Carbamic acid, [1-[1-[2-(2,3-dihydro-3-methyl-2-oxo-4-benzoxazolyl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



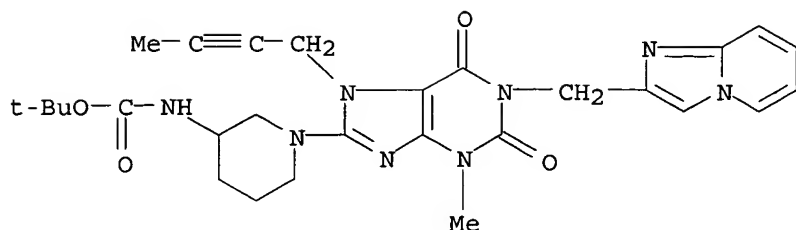
RN 668273-81-2 CAPLUS

CN Carbamic acid, [1-[7-(2-butenyl)-1-[[4-(dimethylamino)-2-quinazolinyl]methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



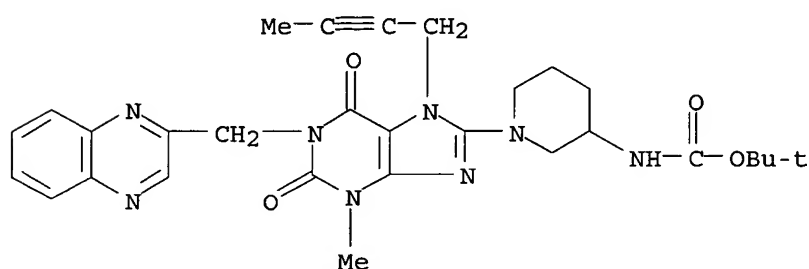
RN 668273-83-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butenyl)-2,3,6,7-tetrahydro-1-(imidazo[1,2-a]pyridin-2-ylmethyl)-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



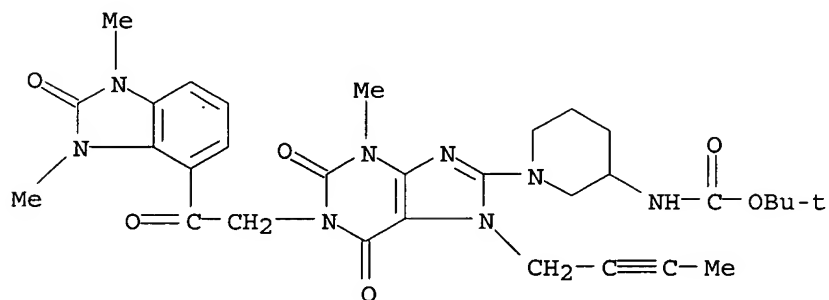
RN 668273-84-5 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinoxalinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



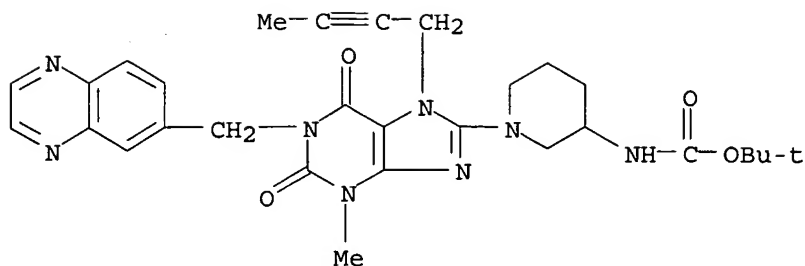
RN 668273-85-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[2-(2,3-dihydro-1,3-dimethyl-2-oxo-1H-benzimidazol-4-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



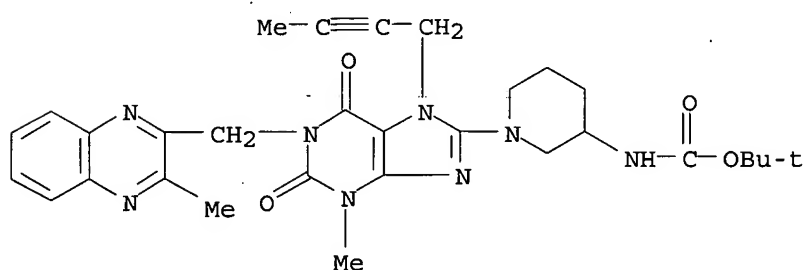
RN 668273-86-7 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(6-quinoxalinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



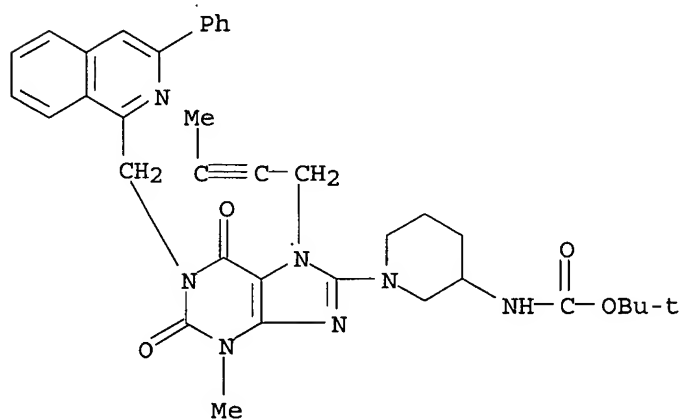
RN 668273-88-9 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-2-quinoxaliny)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



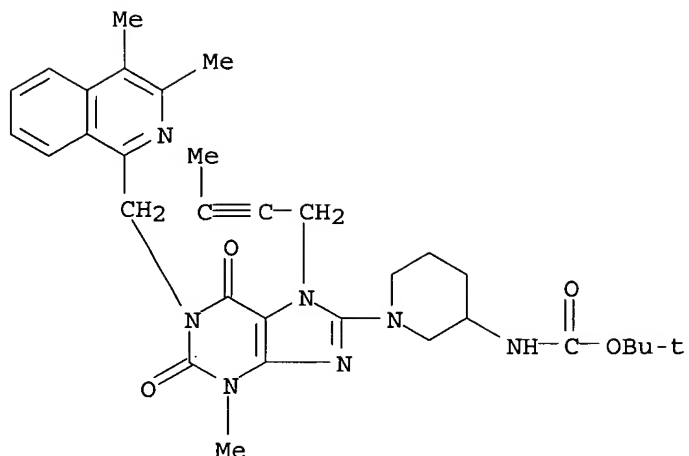
RN 668273-89-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(3-phenyl-1-isoquinolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-90-3 CAPLUS

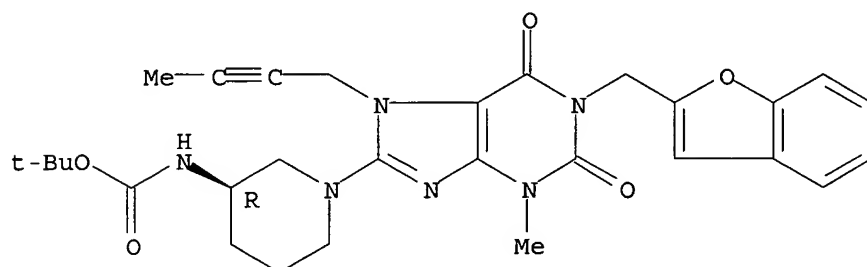
CN Carbamic acid, [1-[7-(2-butynyl)-1-[(3,4-dimethyl-1-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-91-4 CAPLUS

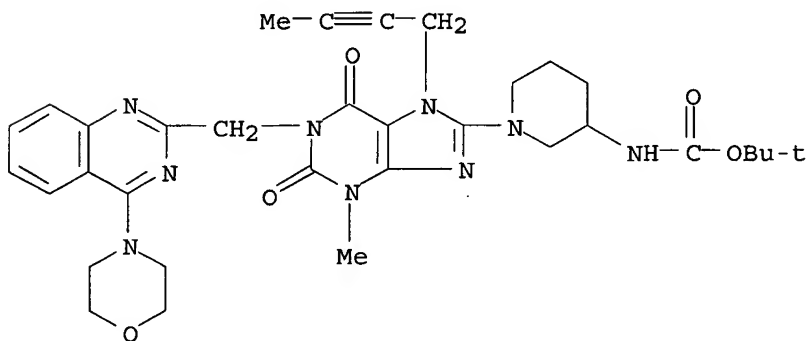
CN Carbamic acid, [(3R)-1-[1-(2-benzofuranylmethyl)-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 668273-92-5 CAPLUS

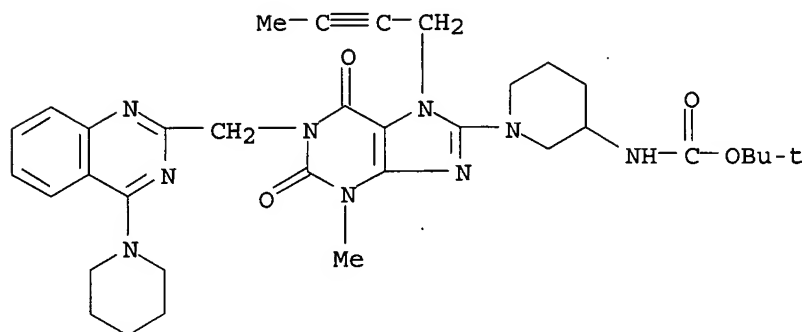
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[[4-(4-morpholinyl)-2-quinazolinyl]methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-93-6 CAPLUS

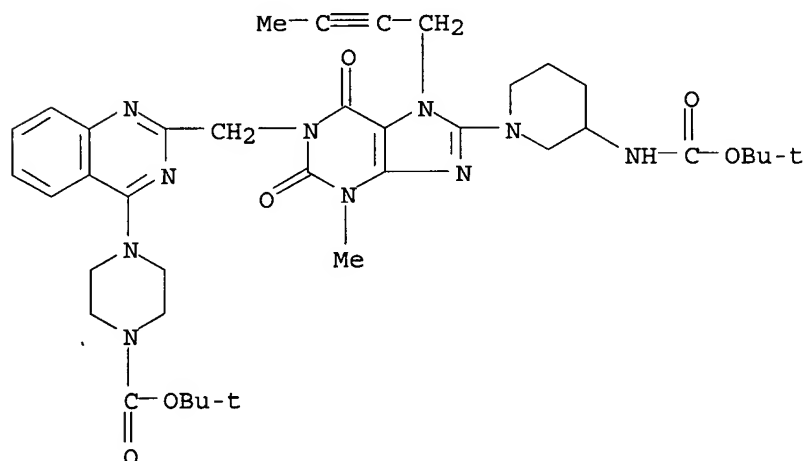
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-

[[4-(1-piperidinyl)-2-quinazolinyl]methyl]-1H-purin-8-yl]-3-piperidinyl]-,
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



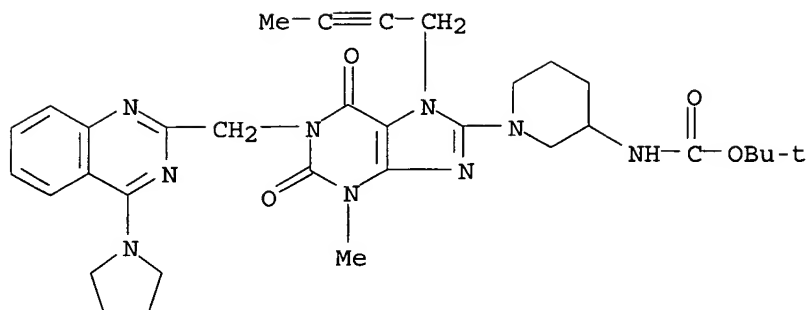
RN 668273-94-7 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[2-[[7-(2-butynyl)-8-[3-[[1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]methyl]-4-quinazolinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



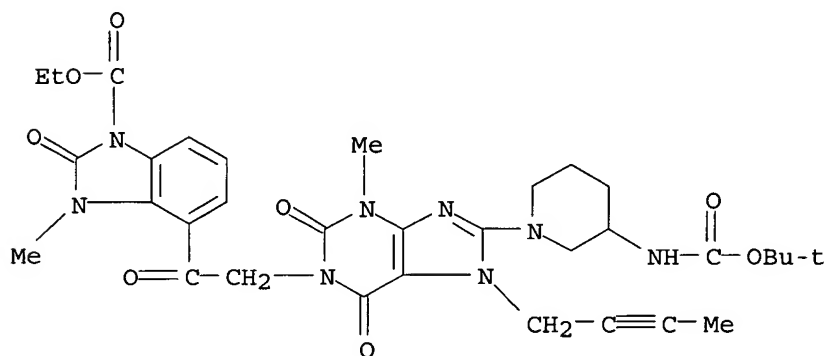
RN 668273-95-8 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[[4-(1-pyrrolidinyl)-2-quinazolinyl]methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



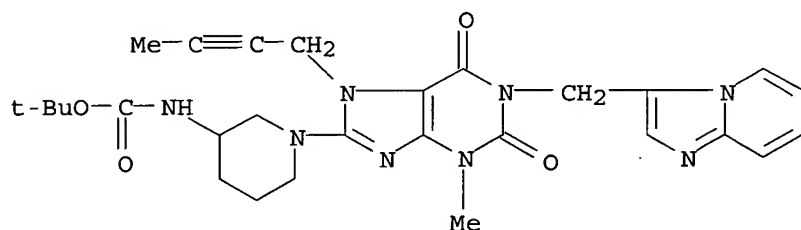
RN 668273-96-9 CAPLUS

CN 1H-Benzimidazole-1-carboxylic acid, 4-[[7-(2-butynyl)-8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]acetyl]-2,3-dihydro-3-methyl-2-oxo-, ethyl ester (9CI) (CA INDEX NAME)



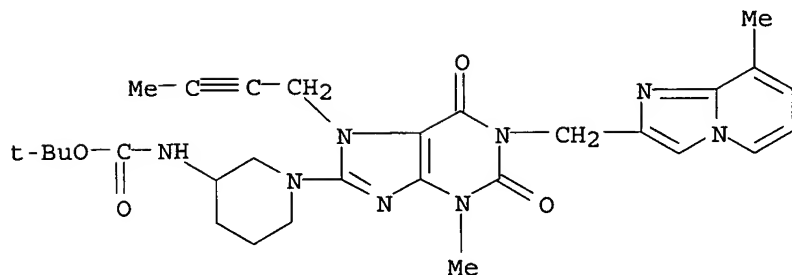
RN 668273-98-1 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-1-(imidazo[1,2-a]pyridin-3-ylmethyl)-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



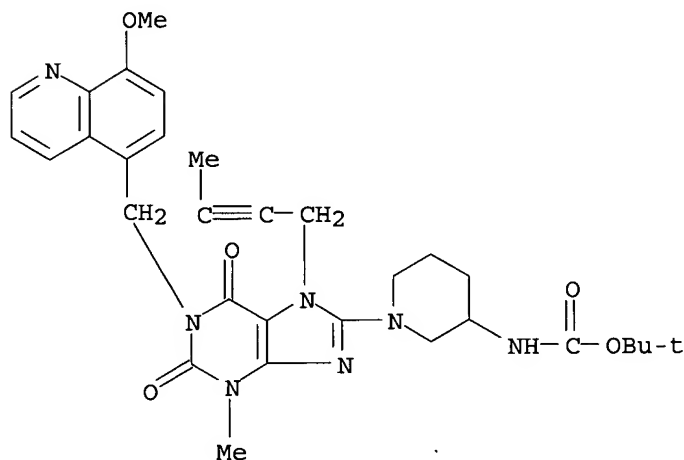
RN 668273-99-2 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(8-methylimidazo[1,2-a]pyridin-2-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



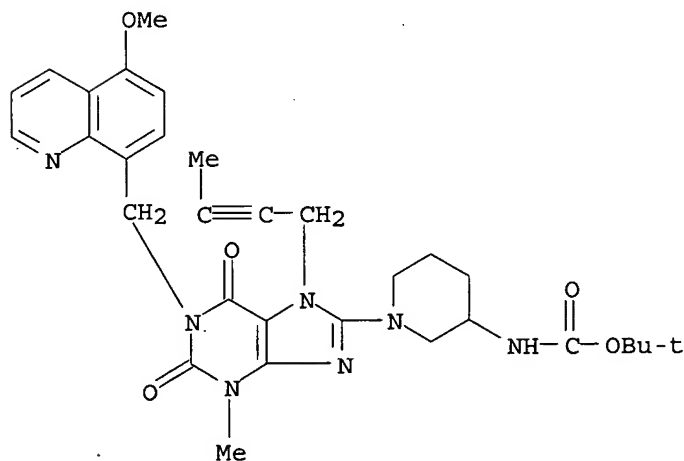
RN 668274-00-8 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-1-[(8-methoxy-5-quinolinyl)methyl]-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



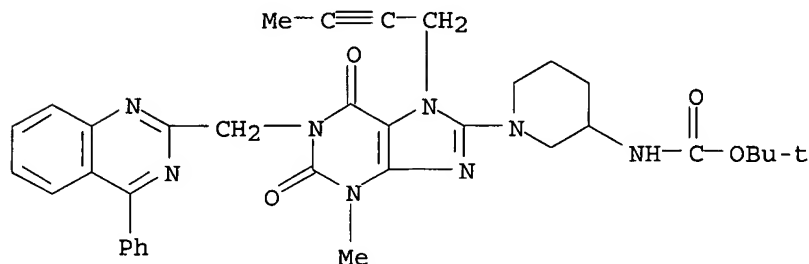
RN 668274-01-9 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-1-[(5-methoxy-8-quinolinyl)methyl]-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



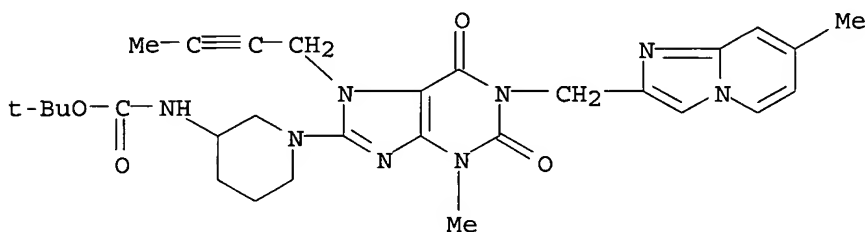
RN 668274-02-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(4-phenyl-2-quinazolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-03-1 CAPLUS

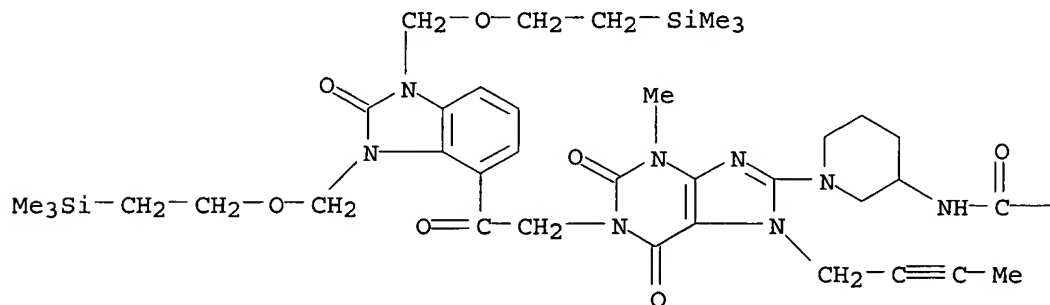
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(7-methylimidazo[1,2-a]pyridin-2-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-05-3 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[2-[2,3-dihydro-2-oxo-1,3-bis[(2-(trimethylsilyl)ethoxy)methyl]-1H-benzimidazol-4-yl]-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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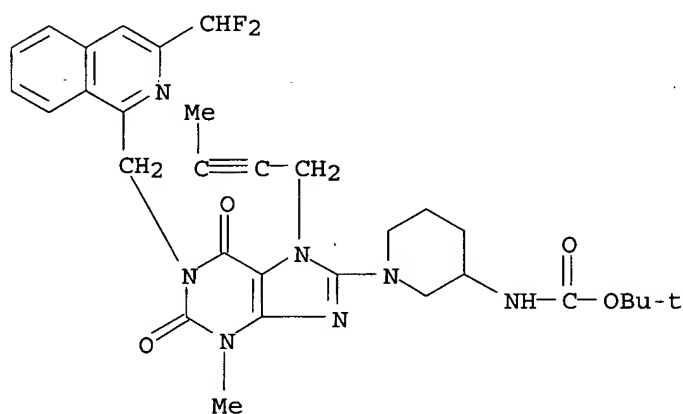


PAGE 1-B

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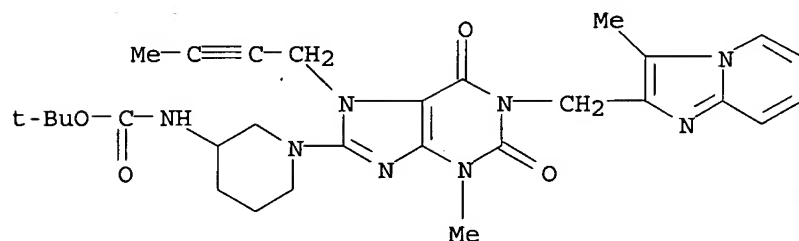
RN 668274-06-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[[3-(difluoromethyl)-1-isoquinolinyl]methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



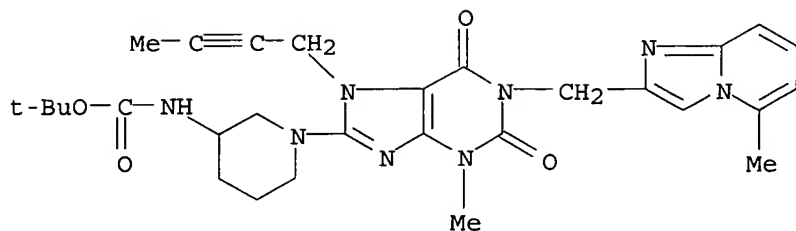
RN 668274-08-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(3-methylimidazo[1,2-a]pyridin-2-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



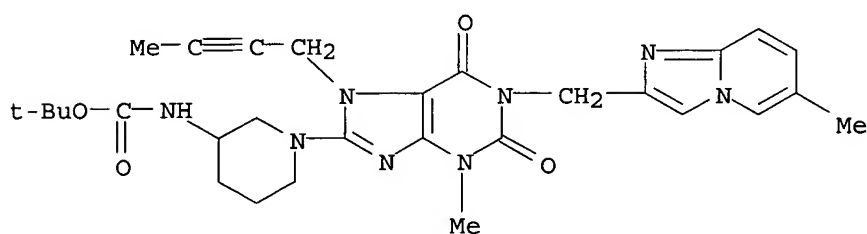
RN 668274-09-7 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(5-methylimidazo[1,2-a]pyridin-2-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



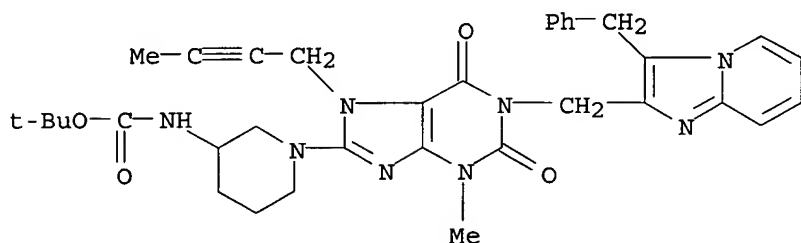
RN 668274-10-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(6-methylimidazo[1,2-a]pyridin-2-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



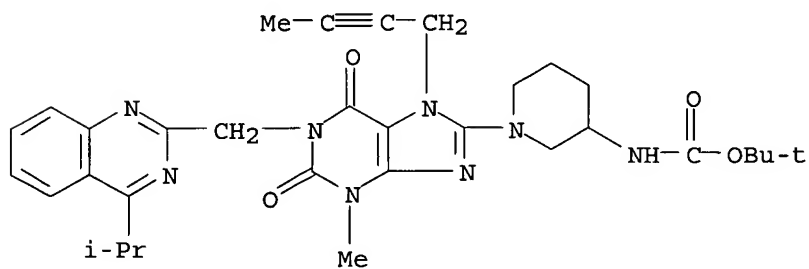
RN 668274-11-1 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[[3-(phenylmethyl)imidazo[1,2-a]pyridin-2-yl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



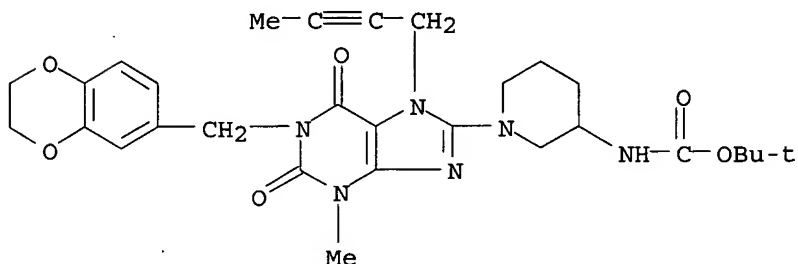
RN 668274-12-2 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[[4-(1-methylethyl)-2-quinazolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



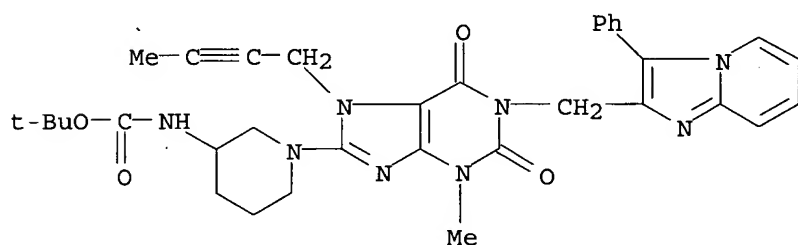
RN 668274-13-3 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(2,3-dihydro-1,4-benzodioxin-6-yl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



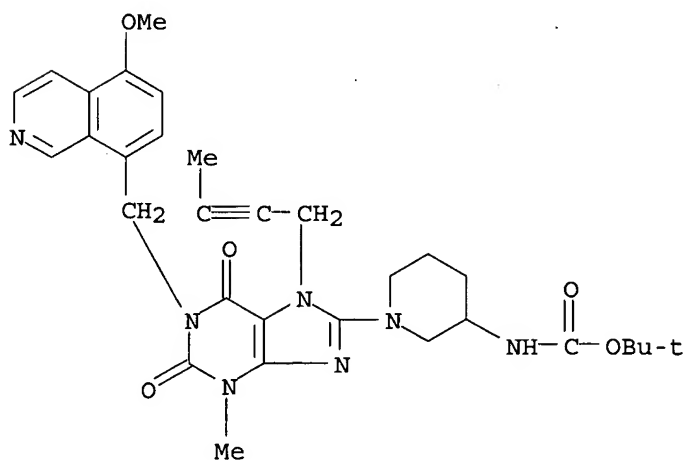
RN 668274-14-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(3-phenylimidazo[1,2-a]pyridin-2-yl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



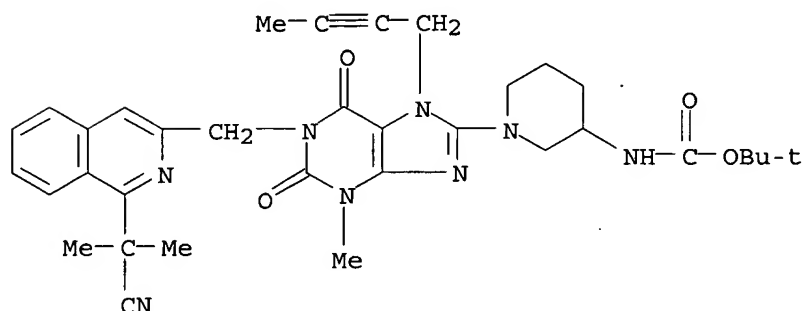
RN 668274-16-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-1-[(5-methoxy-8-isoquinolinyl)methyl]-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-17-7 CAPLUS

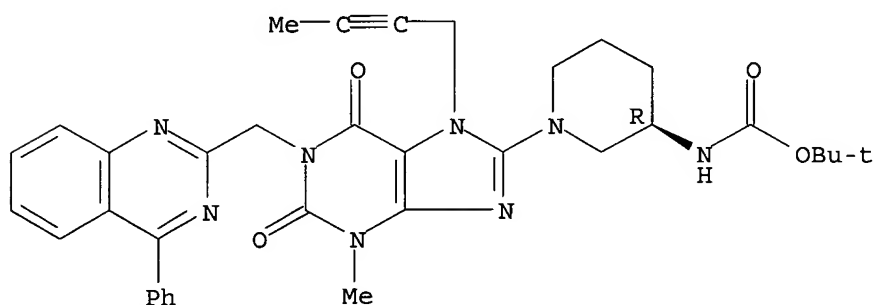
CN Carbamic acid, [1-[7-(2-butynyl)-1-[[1-(1-cyano-1-methylethyl)-3-isoquinolinyl]methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-19-9 CAPLUS

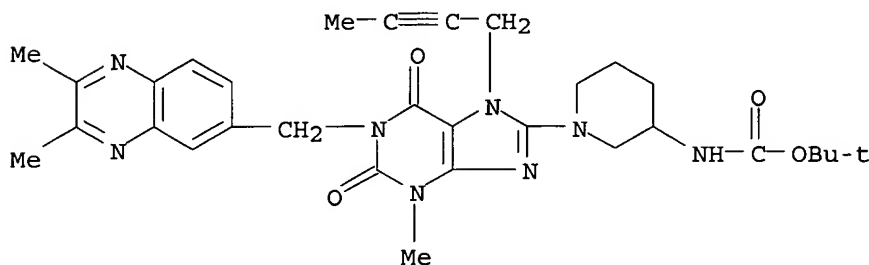
CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(4-phenyl-2-quinazolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 668274-20-2 CAPLUS

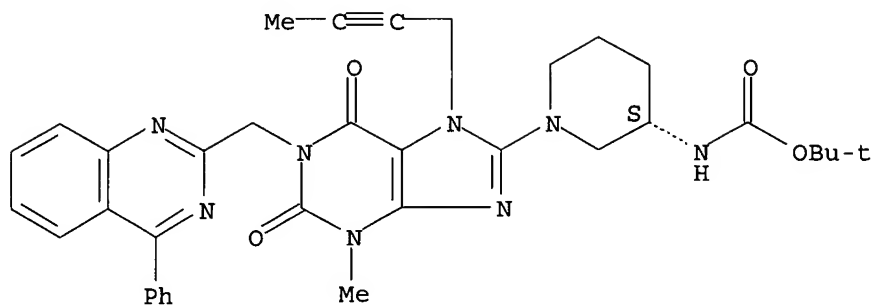
CN Carbamic acid, [1-[7-(2-butynyl)-1-[(2,3-dimethyl-6-quinoxaliny]methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-21-3 CAPLUS

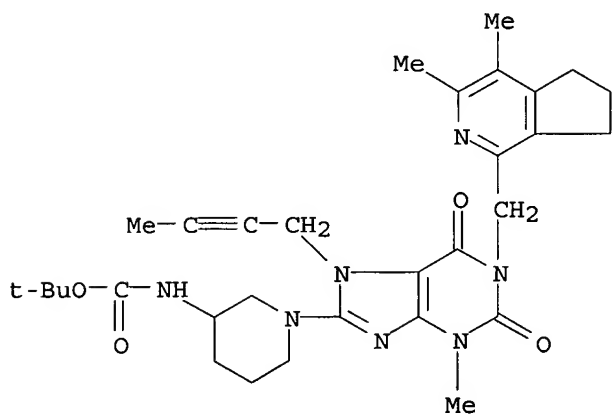
CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(4-phenyl-2-quinazolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

. Absolute stereochemistry.



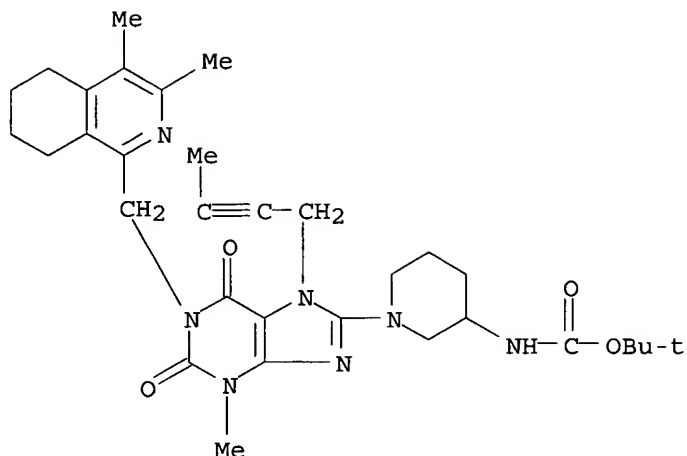
RN 668274-23-5 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(6,7-dihydro-3,4-dimethyl-5H-cyclopenta[c]pyridin-1-yl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidiny]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



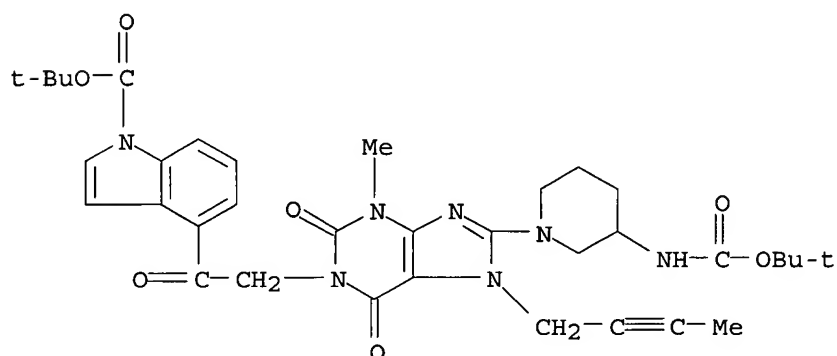
RN 668274-24-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(5,6,7,8-tetrahydro-3,4-dimethyl-1-isoquinolinyl)methyl]-1H-purin-8-yl]-3-piperidiny]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



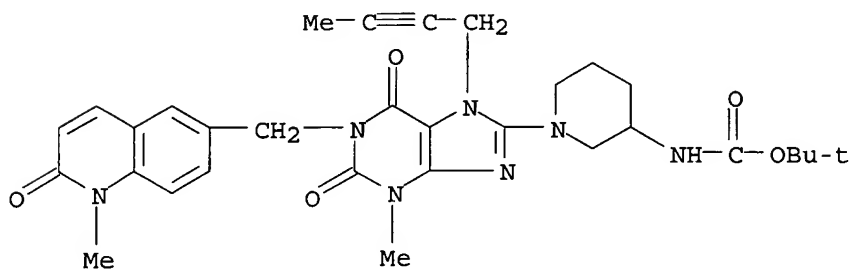
RN 668274-25-7 CAPLUS

CN 1H-Indole-1-carboxylic acid, 4-[[7-(2-butynyl)-8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-1-yl]acetyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-26-8 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(1,2-dihydro-1-methyl-2-oxo-6-quinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

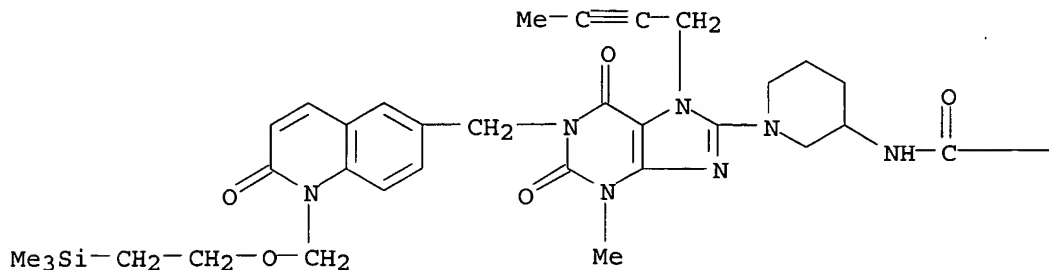


RN 668274-27-9 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[[1,2-dihydro-2-oxo-1-[2-

(trimethylsilyl)ethoxy)methyl]-6-quinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

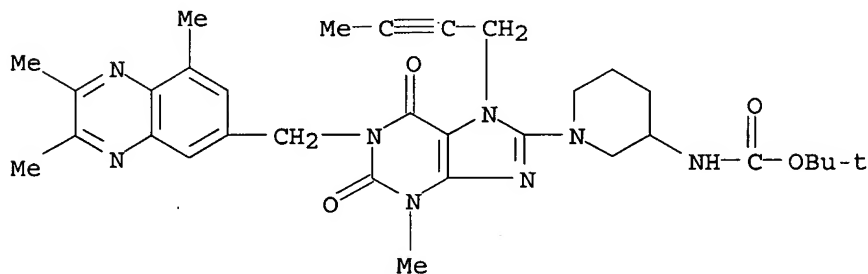


PAGE 1-B

—OBu-t

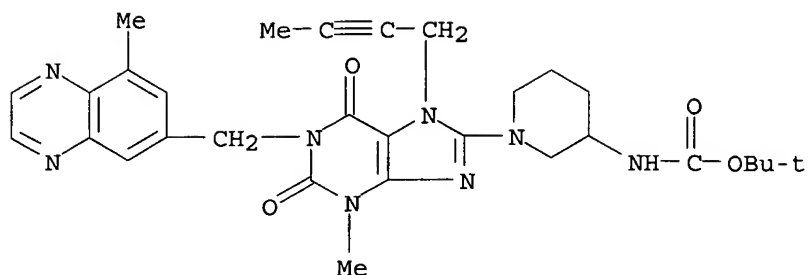
RN 668274-28-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(2,3,8-trimethyl-6-quinoxaliny)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



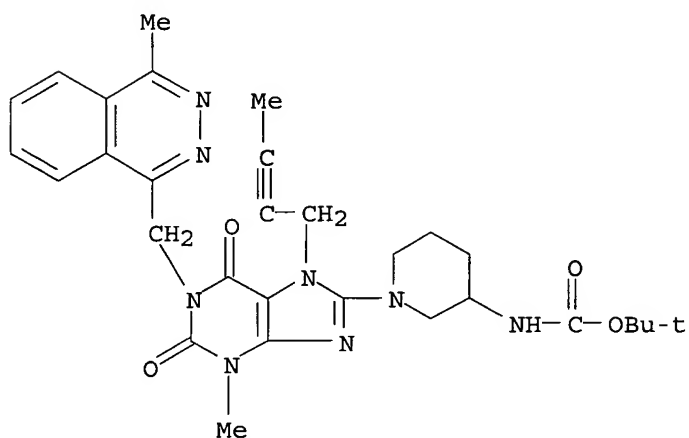
RN 668274-29-1 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(8-methyl-6-quinoxaliny)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



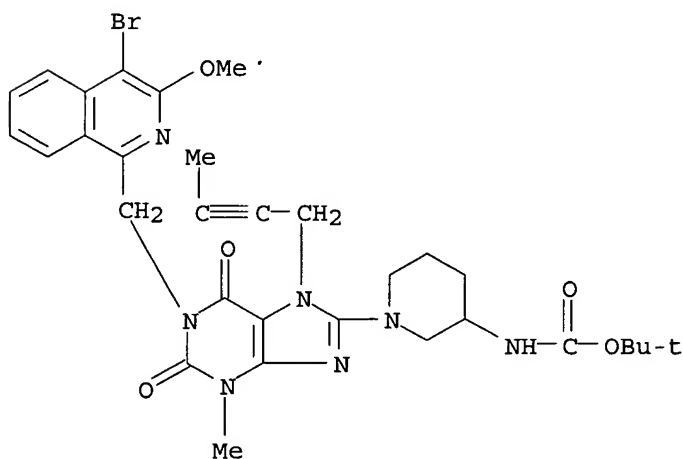
RN 668274-30-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-phthalazinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



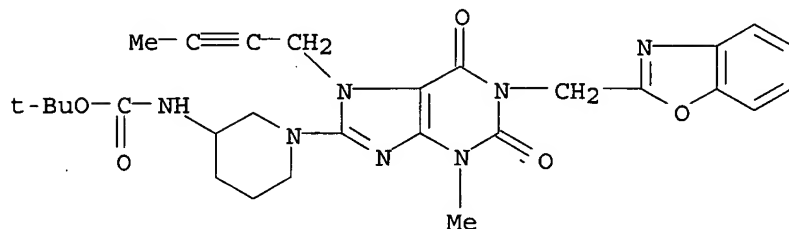
RN 668274-31-5 CAPLUS

CN Carbamic acid, [1-[1-[(4-bromo-3-methoxy-1-isoquinolinyl)methyl]-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



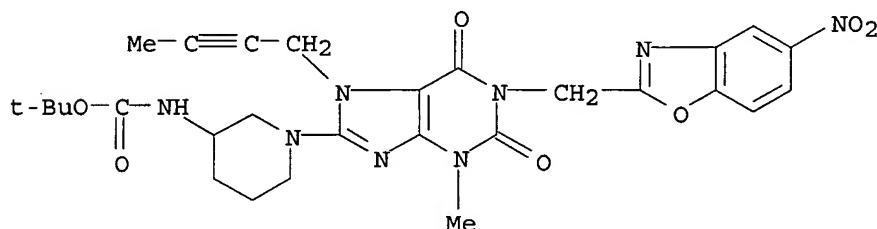
RN 668274-37-1 CAPLUS

CN Carbamic acid, [1-[1-(2-benzoxazolylmethyl)-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



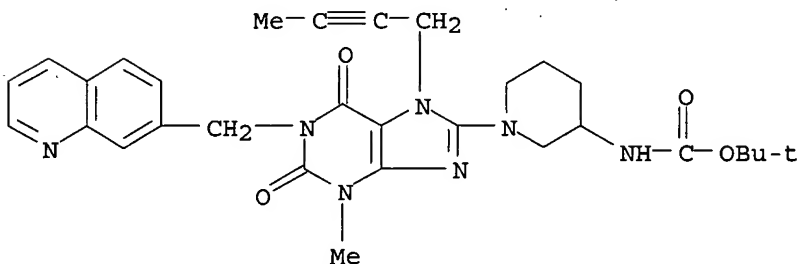
RN 668274-38-2 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(5-nitro-2-benzoxazolyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



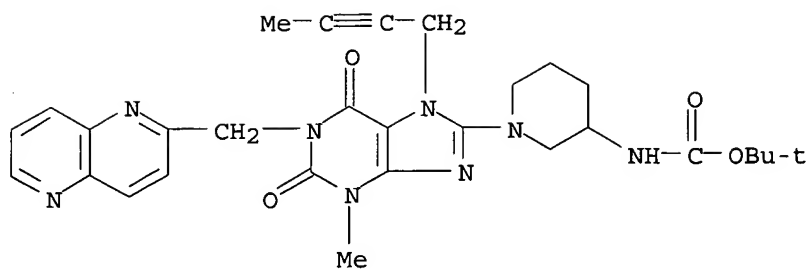
RN 668274-40-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(7-quinolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-41-7 CAPLUS

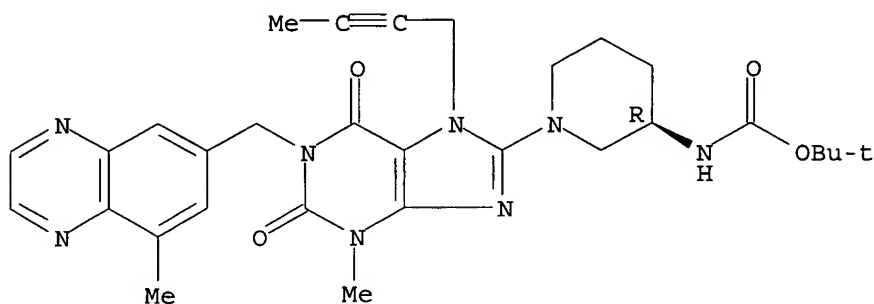
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-(1,5-naphthyridin-2-ylmethyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-42-8 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(8-methyl-6-quinoxalinylmethyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

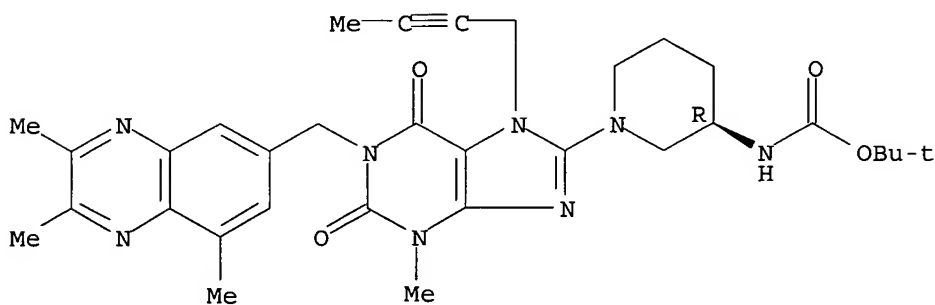
Absolute stereochemistry.



RN 668274-43-9 CAPLUS

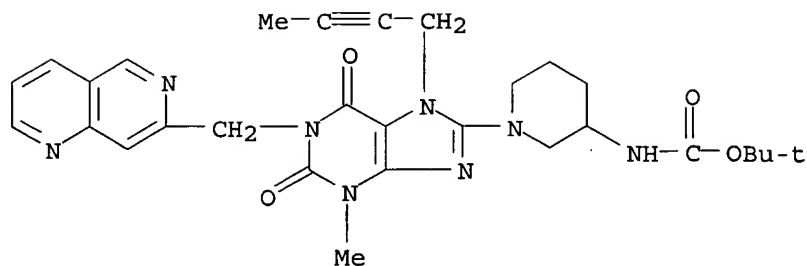
CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(2,3,8-trimethyl-6-quinoxalinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



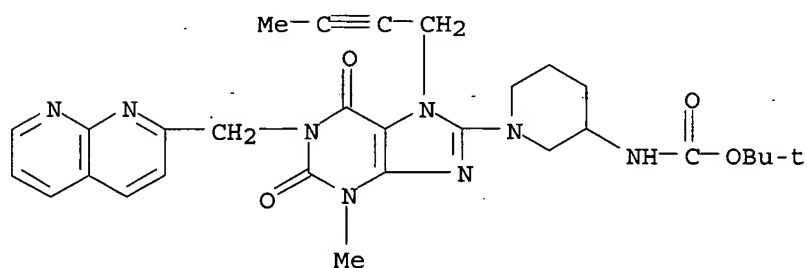
RN 668274-44-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-(1,6-naphthyridin-7-ylmethyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-45-1 CAPLUS

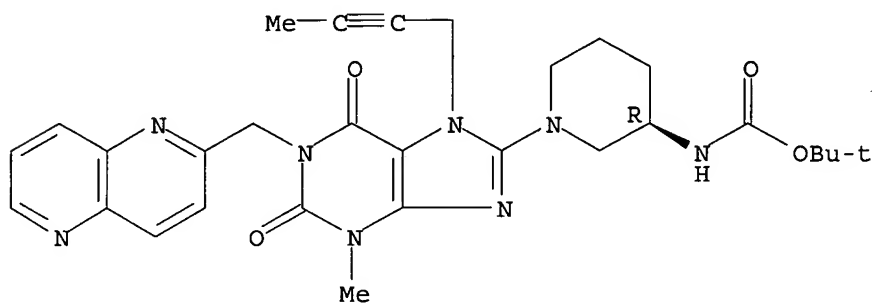
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-(1,8-naphthyridin-2-ylmethyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-47-3 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-(1,5-naphthyridin-2-ylmethyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

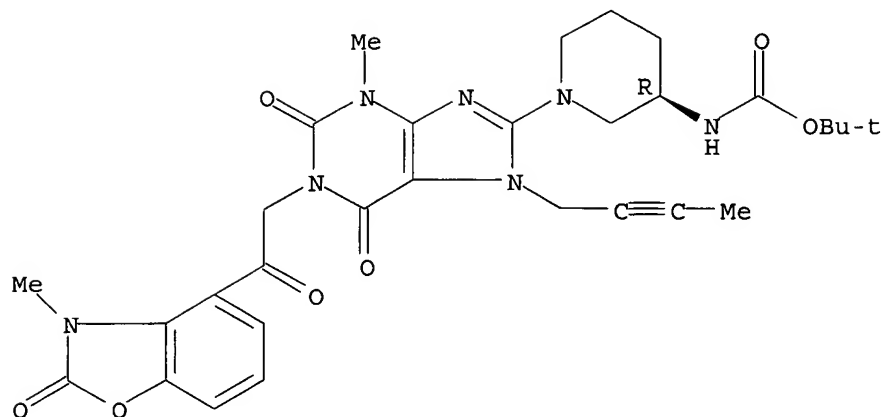
Absolute stereochemistry.



RN 668274-48-4 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-1-[2-(2,3-dihydro-3-methyl-2-oxo-4-benzoxazolyl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

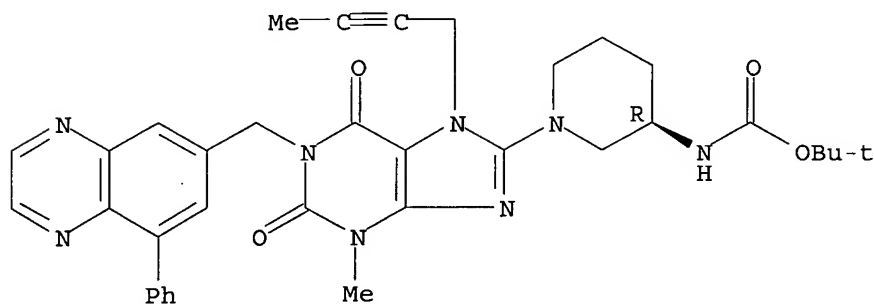
Absolute stereochemistry.



RN 668274-49-5 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(8-phenyl-6-quinoxaliny)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

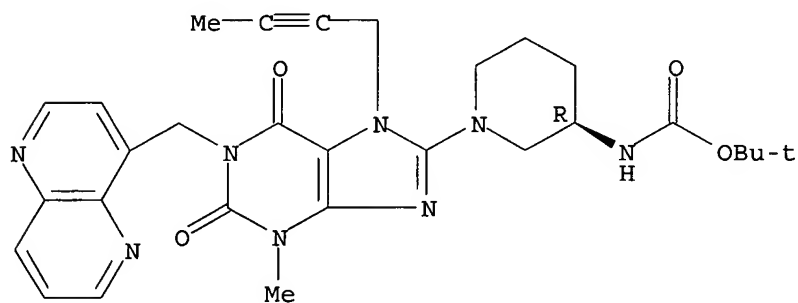
Absolute stereochemistry.



RN 668274-50-8 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-(1,5-naphththyridin-4-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

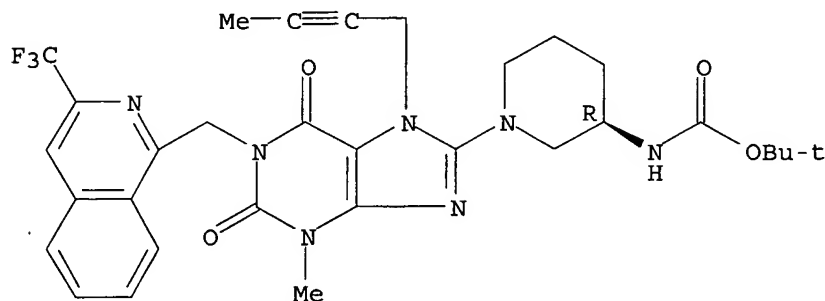


RN 668274-55-3 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-

dioxo-1-[[3-(trifluoromethyl)-1-isoquinolinyl]methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

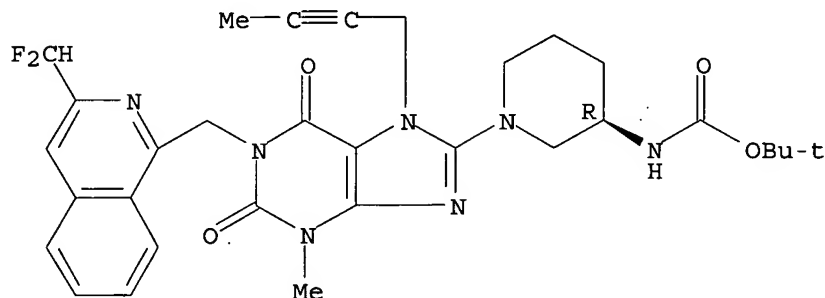
Absolute stereochemistry.



RN 668274-56-4 CAPLUS

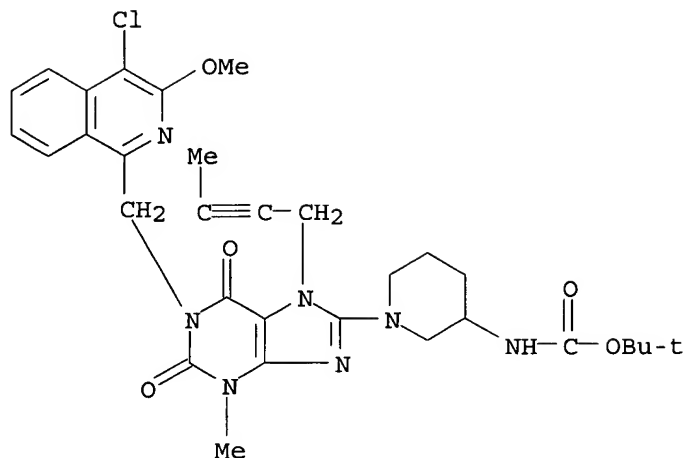
CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-1-[[3-(difluoromethyl)-1-isoquinolinyl]methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



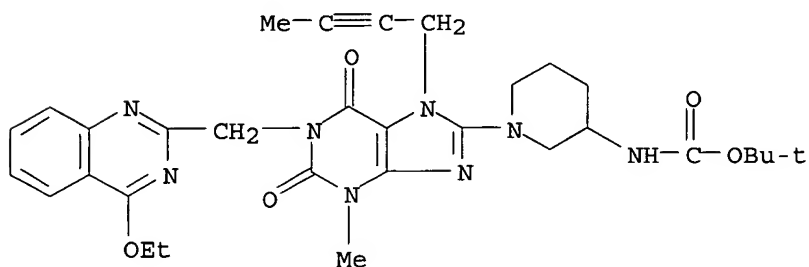
RN 668274-57-5 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(4-chloro-3-methoxy-1-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



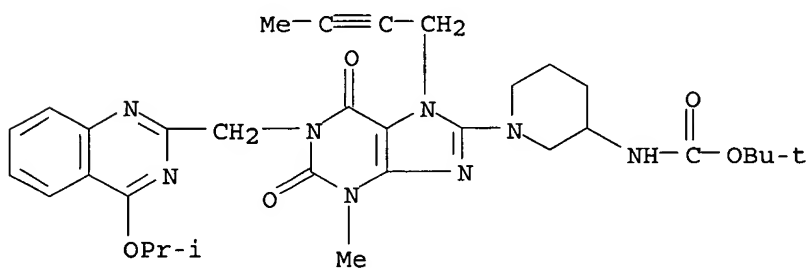
RN 668274-58-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(4-ethoxy-2-quinazolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



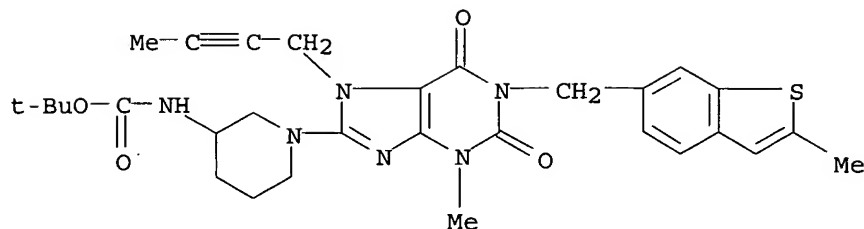
RN 668274-59-7 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[[4-(1-methylethoxy)-2-quinazolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-60-0 CAPLUS

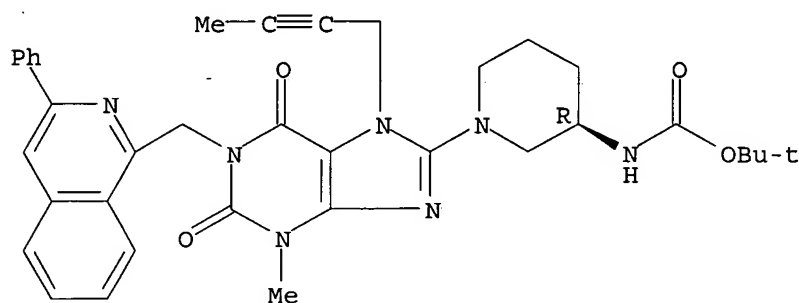
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(2-methylbenzo[b]thien-6-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-61-1 CAPLUS

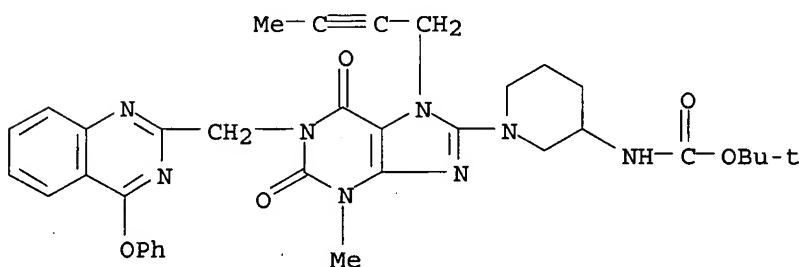
CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(3-phenyl-1-isoquinolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



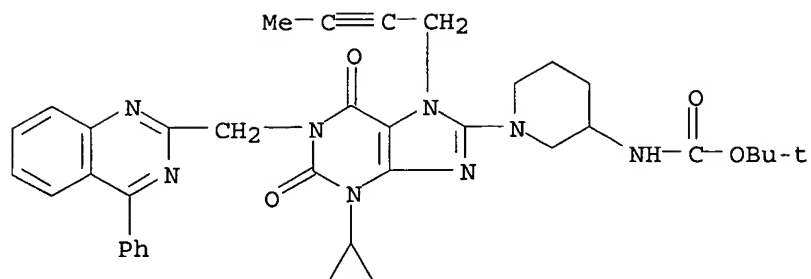
RN 668274-62-2 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(4-phenoxy-2-quinazolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



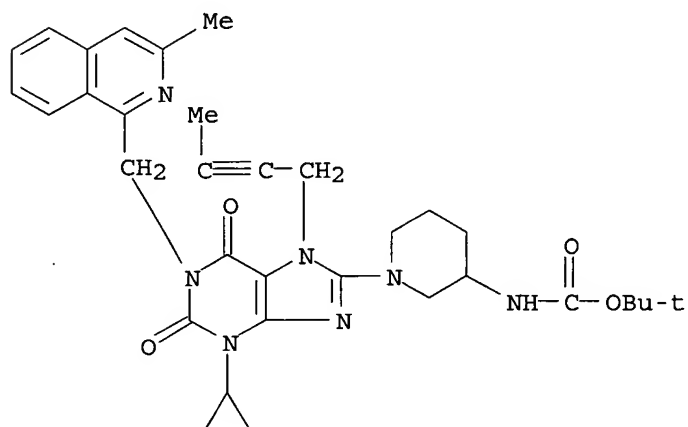
RN 668274-63-3 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-3-cyclopropyl-2,3,6,7-tetrahydro-2,6-dioxo-1-[(4-phenyl-2-quinazolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



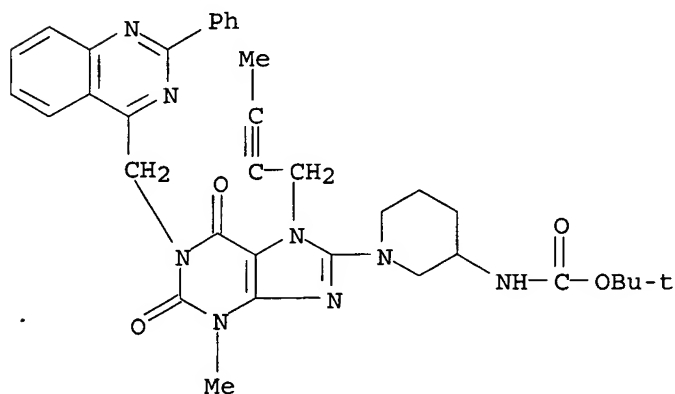
RN 668274-64-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-3-cyclopropyl-2,3,6,7-tetrahydro-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668274-66-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(2-phenyl-4-quinazolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

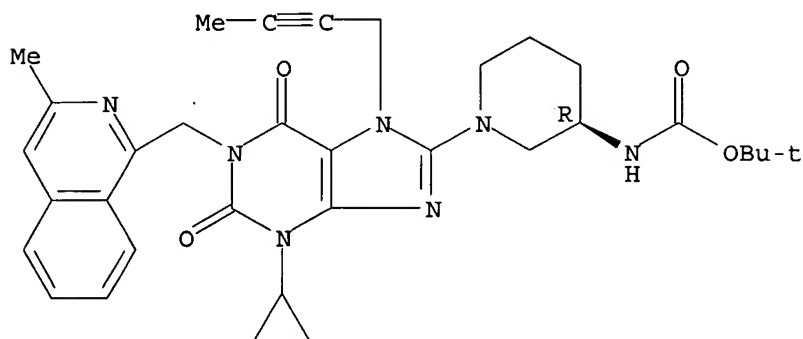


RN 668274-73-5 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-3-cyclopropyl-2,3,6,7-tetrahydro-1-

[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

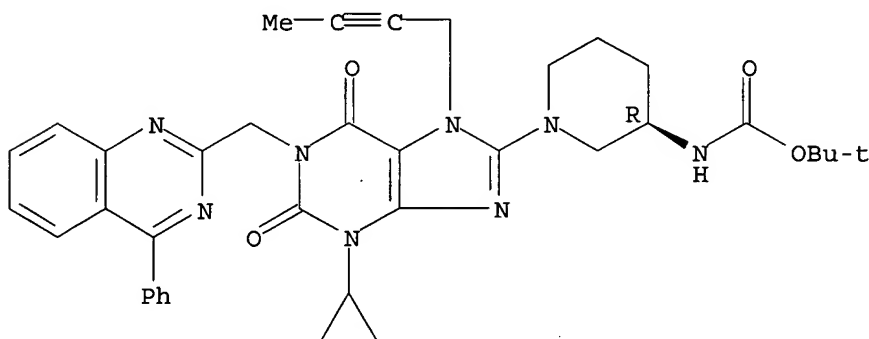
Absolute stereochemistry.



RN 668274-74-6 CAPLUS

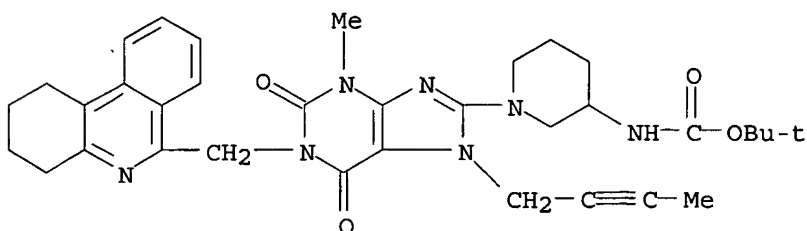
CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-3-cyclopropyl-2,3,6,7-tetrahydro-2,6-dioxo-1-[(4-phenyl-2-quinazolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 668274-80-4 CAPLUS

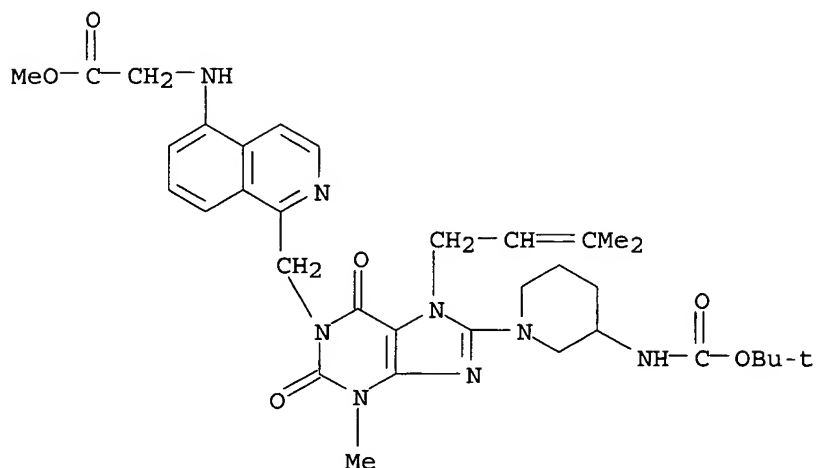
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[(1,2,3,4-tetrahydro-6-phenanthridinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668275-00-1 CAPLUS

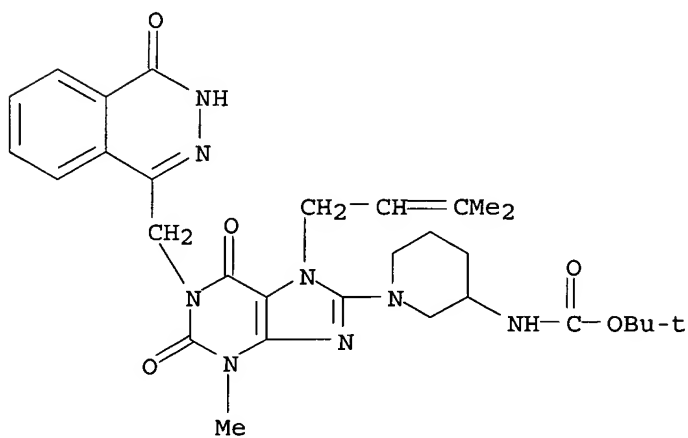
CN Glycine, N-[1-[[8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-1-

yl)methyl]-5-isoquinolinyl]-, methyl ester (9CI) (CA INDEX NAME)



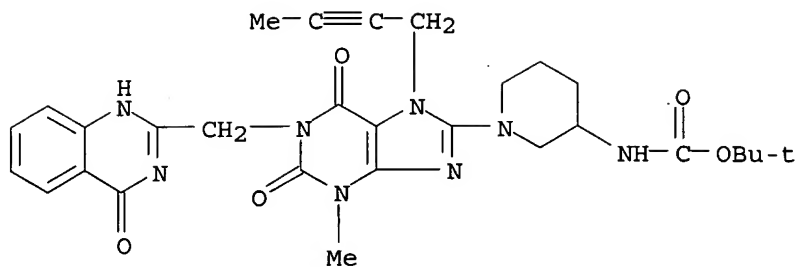
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CN Carbamic acid, [1-[1-[(3,4-dihydro-4-oxo-1-phthalazinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



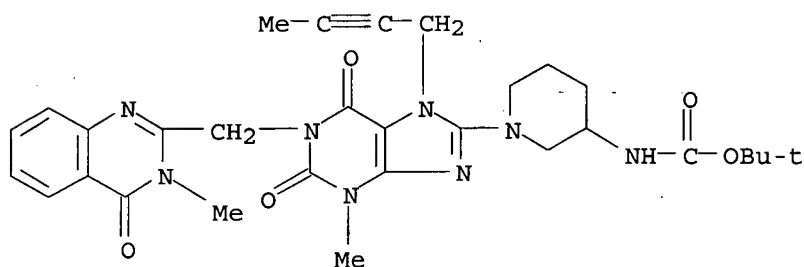
RN 668275-84-1 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(1,4-dihydro-4-oxo-2-quinazolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



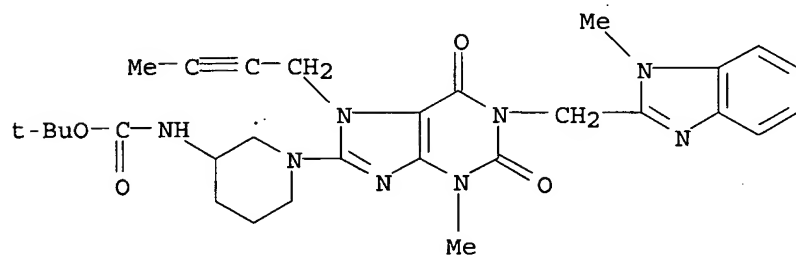
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CN Carbamic acid, [1-[7-(2-butynyl)-1-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



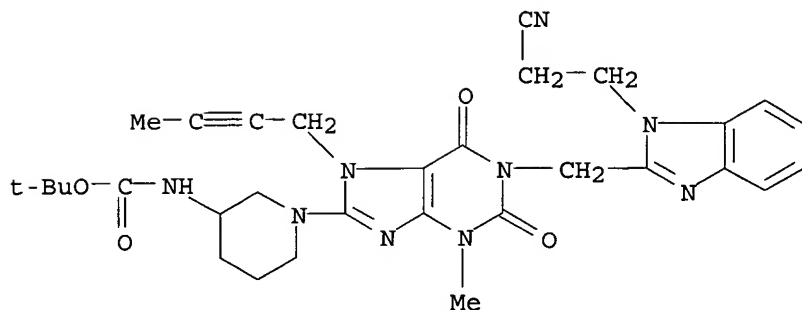
RN 668276-00-4 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(1-methyl-1H-benzimidazol-2-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



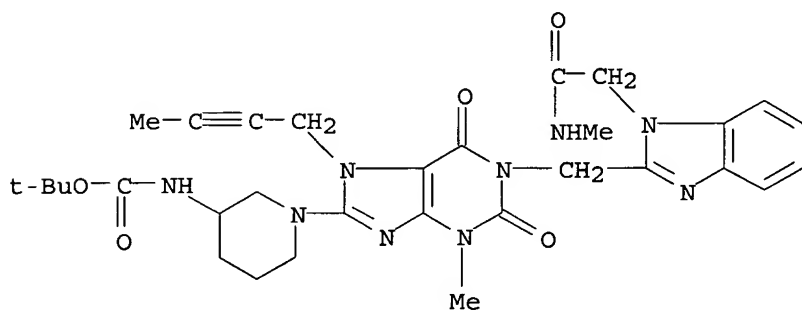
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CN Carbamic acid, [1-[7-(2-butynyl)-1-[[1-(2-cyanoethyl)-1H-benzimidazol-2-yl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



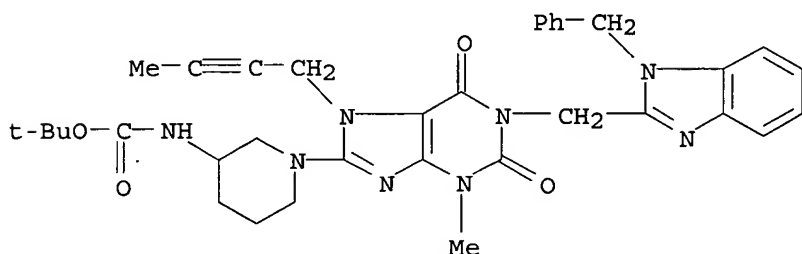
RN 668276-02-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[[1-[2-(methylamino)-2-oxoethyl]-1H-benzimidazol-2-yl]methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



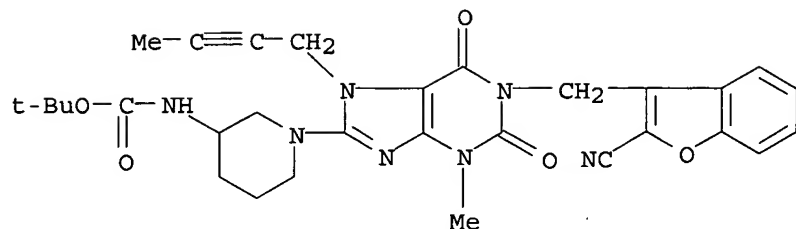
RN 668276-03-7 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-[[1-(phenylmethyl)-1H-benzimidazol-2-yl]methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



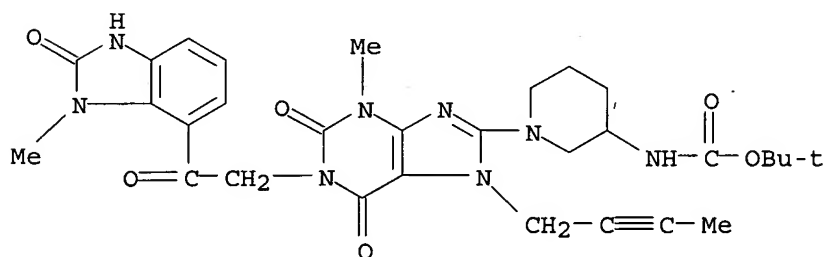
RN 668276-14-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(2-cyano-3-benzofuranyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



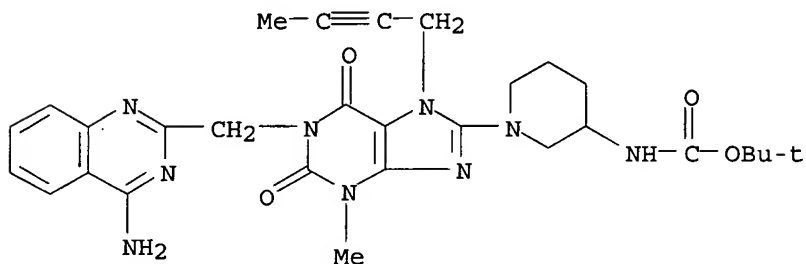
RN 668276-15-1 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[2-(2,3-dihydro-3-methyl-2-oxo-1H-benzimidazol-4-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



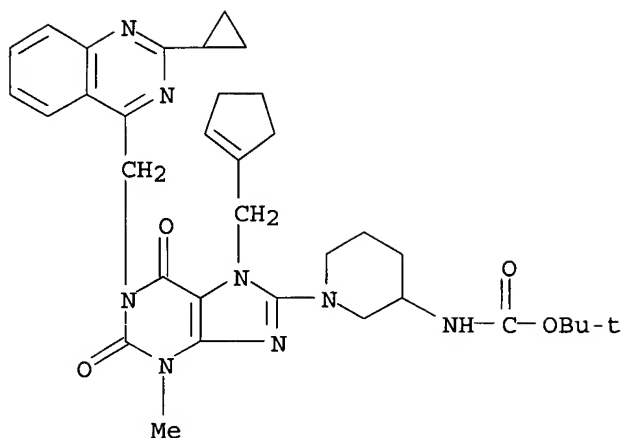
RN 668276-17-3 CAPLUS

CN Carbamic acid, [1-[1-[(4-amino-2-quinazolinyl)methyl]-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



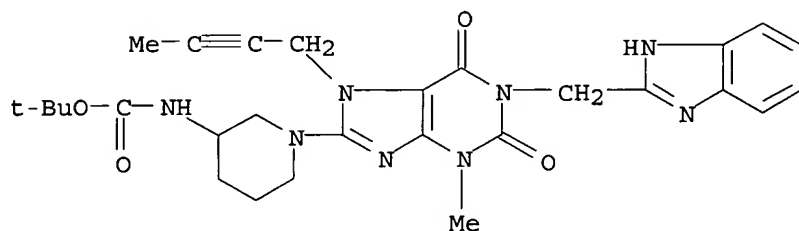
RN 668276-21-9 CAPLUS

CN Carbamic acid, [1-[7-(1-cyclopenten-1-ylmethyl)-1-[(2-cyclopropyl-4-quinazolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668276-36-6 CAPLUS

CN Carbamic acid, [1-[1-(1H-benzimidazol-2-ylmethyl)-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:177895 CAPLUS

DOCUMENT NUMBER: 140:235732

TITLE: Production of 8-[3-aminopiperidin-1-yl]xanthines and their use as drugs

INVENTOR(S): Himmelsbach, Frank; Eckhardt, Matthias; Langkopf, Elke; Mark, Michael; Maier, Roland; Lotz, Ralf

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G., Germany

SOURCE: Ger. Offen., 52 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

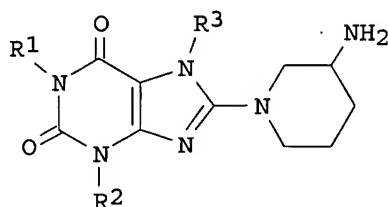
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

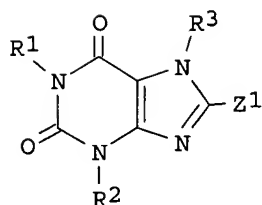
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US 2004097510	A1	20040520	US 2003-639036	20030812
CA 2496249	AA	20040304	CA 2003-2496249	20030818
WO 2004018468	A2	20040304	WO 2003-EP9127	20030818
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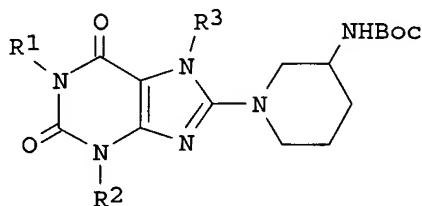
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 PRIORITY APPLN. INFO.: DE 2002-10238243 A 20020821
 US 2002-409312P P 20020909
 DE 2003-10312353 A 20030320
 US 2003-461752P P 20030410
 WO 2003-EP9127 W 20030818
 OTHER SOURCE(S): MARPAT 140:235732
 GI



I



II



III

AB The present invention concerns substituted xanthines, e.g., I [R1 = Me, CH2CONMe2, CH2CO-(pyrrolidin-1-yl), CH2CO-(piperidin-1-yl), (un)substituted CH2-naphthyl, CH2CH:CHPh, CH2C6H4Ph, CH2-(phenyloxadiazolyl), CH2(5-methyl-3-phenylisoxazolyl), CH2(phenylpyridinyl), CH2-indolinyl, CH2-quinolinyl, CH2-isoquinolinyl, CH2-quinazolinyl, CH2-(3,4-dihydro-4-oxophthalazinyl), CH2-(2-oxo-2H-chromenyl), CH2CH2OEt, CH2CH2OPh, CH2CH2CN, CH2COPh, CH2CH2COPh, etc.; R2 = H, Me, CHMe2, CH:CHMe, C.tplbond.CMe, Ph, CH2CN, CH2CO2Me; R3 = CH2C2H4CN-2, CH2C2H3(CN)2-2,6, CH2CMe:CH2, CH2CCl:CH2, CH2CH:CHBr, CH2CH:CHMe, CH2CH:CHMe2, CH2CMe:CHMe2, CH2C.tplbond.CMe, (1-cyclopenten-1-yl)methyl, 2-furanylmethyl] their tautomers, their stereoisomers, their mixts., their prodrugs and their salts, which contain valuable pharmacol. properties, in particular an inhibiting effect on the activity of the enzyme dipeptidylpeptidase IV (DPP-IV). The procedure for

the preparation of I is characterized by, reaction of xanthine II [Z1 = leaving group, e.g. halogen, substituted OH, SH, sulfinyl, sulfonyl, sulfonyloxy] with 3-aminopiperidine, its enantiomers, or their salts or its preparation via piperidine derivative III (Boc = CO₂CMe₃). Thus, 1-[(quinazolin-2-yl)methyl]-3-methyl-7-(2-buten-1-yl)-8-[(R)-3-aminopiperidin-1-yl]xanthine [(R)-I; R₁ = (quinazolin-2-yl)methyl, R₂ = Me, R₃ = CH₂C.tplbond.CMe] was prepared from III [R₁ = (quinazolin-2-yl)methyl, R₂ = Me, R₃ = CH₂C.tplbond.CMe] via deprotection with CF₃CO₂H in CH₂Cl₂. The inhibiting effect of (R)-I [R₁ = (quinazolin-2-yl)methyl, R₂ = Me, R₃ = CH₂C.tplbond.CMe] on the activity of the enzyme dipeptidylpeptidase IV was determined [IC₅₀ = 1 nM].

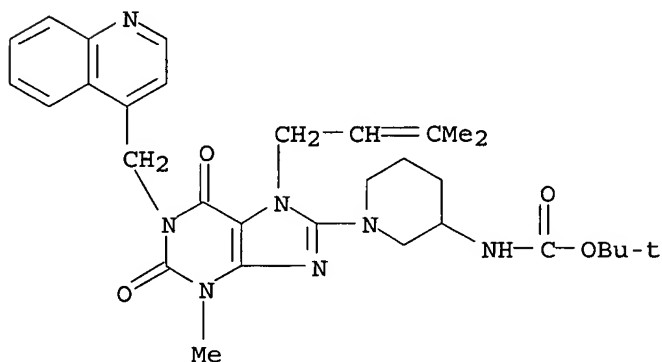
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation and inhibiting activity of 8-[3-aminopiperidin-1-yl]xanthines against dipeptidylpeptidase IV)

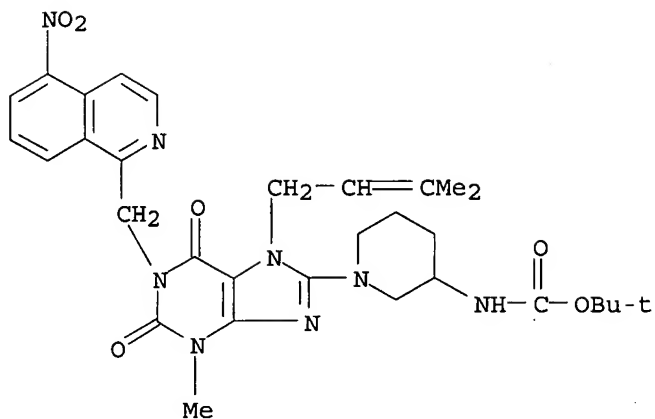
RN 454709-77-4 CAPLUS

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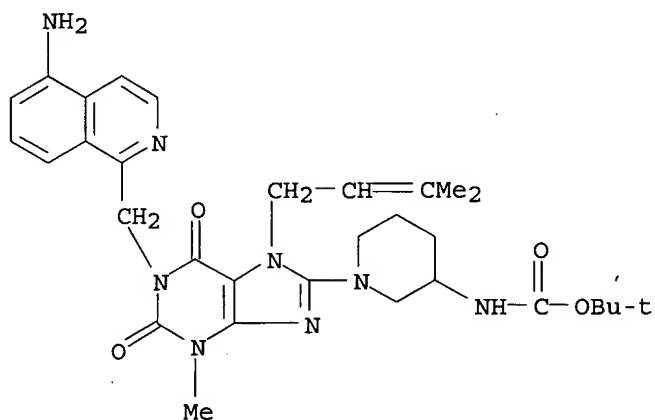
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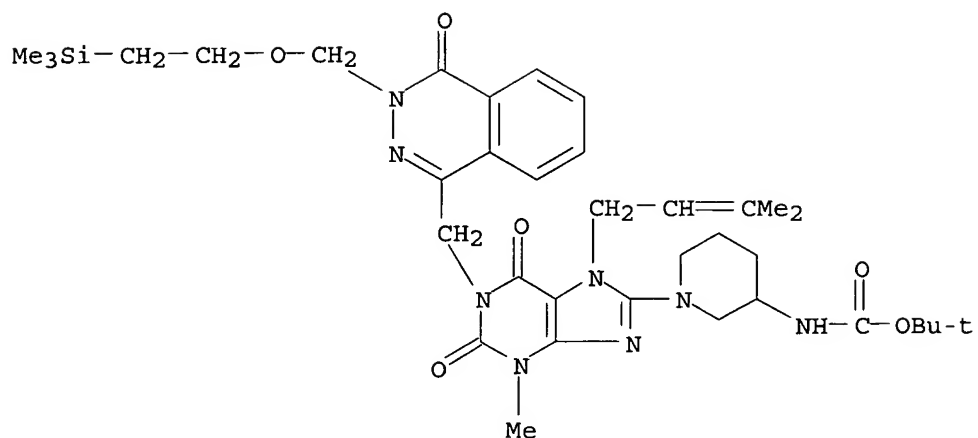
RN 454712-88-0 CAPLUS

CN Carbamic acid, [1-[1-[(5-amino-1-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



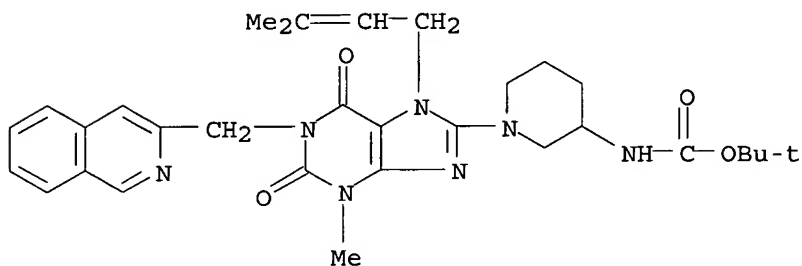
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CN Carbamic acid, [1-[1-[[3,4-dihydro-4-oxo-3-[[2-(trimethylsilyl)ethoxy]methyl]-1-phthalazinyl]methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



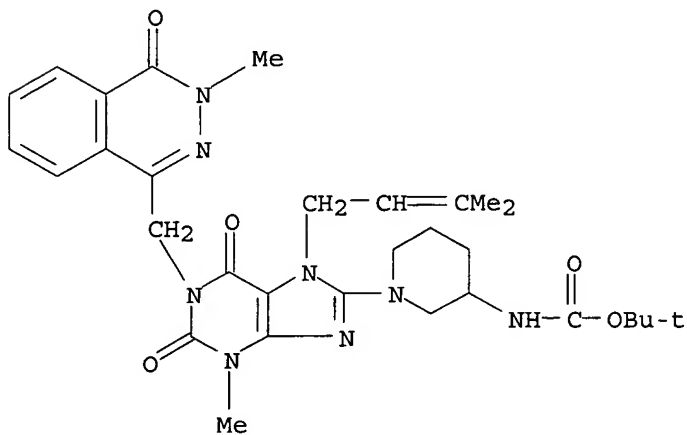
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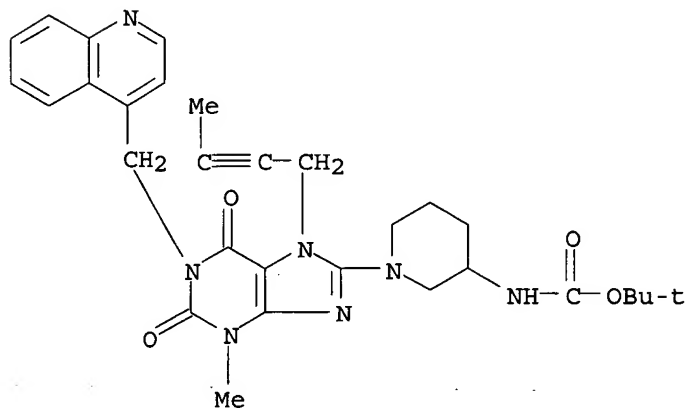


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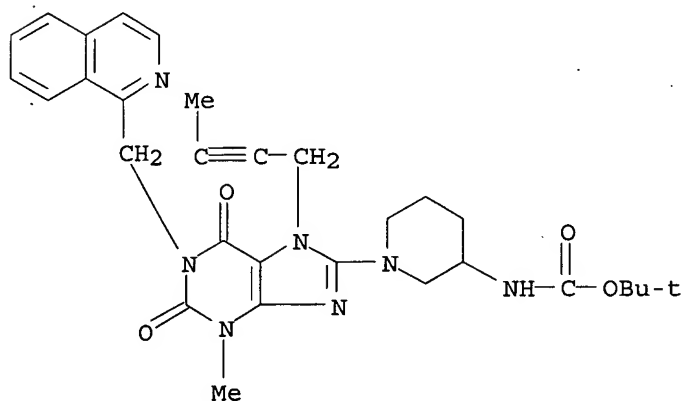
CN Carbamic acid, [1-[1-[(3,4-dihydro-3-methyl-4-oxo-1-phthalazinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668272-44-4 CAPLUS
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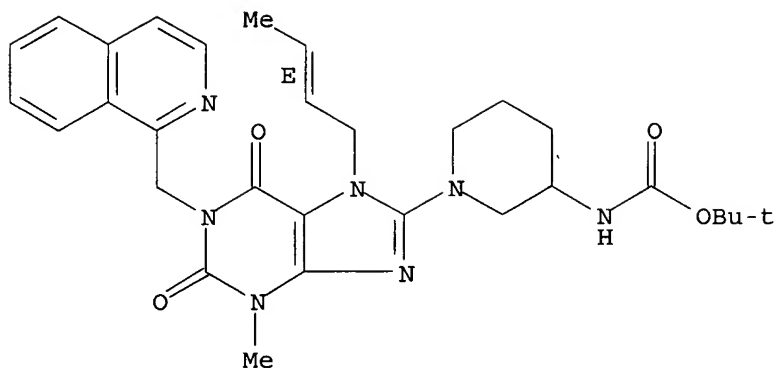


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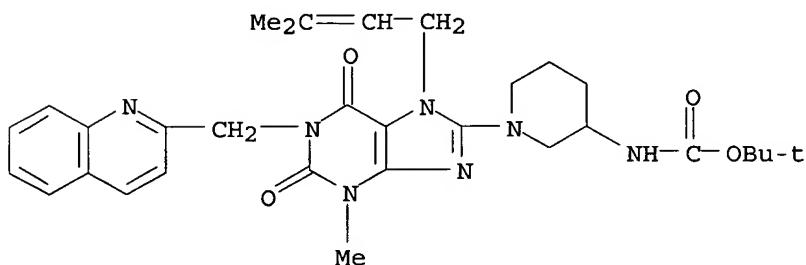
RN 668272-46-6 CAPLUS
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Double bond geometry as shown.



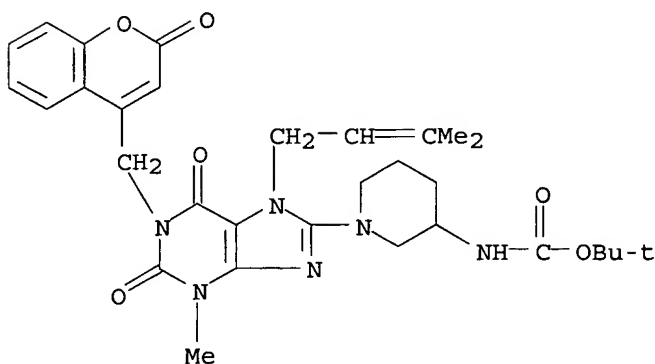
RN 668273-06-1 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1-(2-quinolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



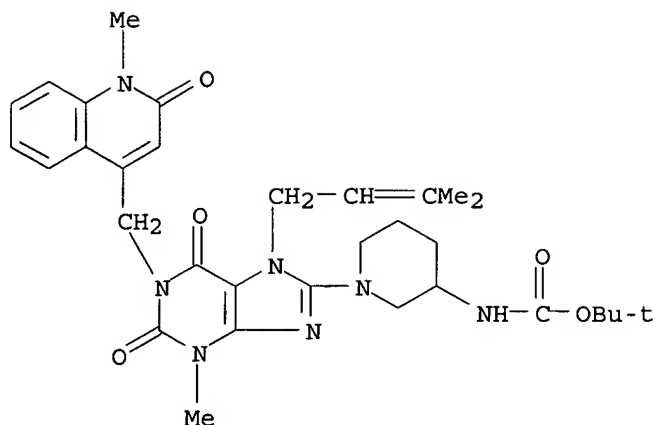
RN 668273-07-2 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1-[(2-oxo-2H-1-benzopyran-4-yl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



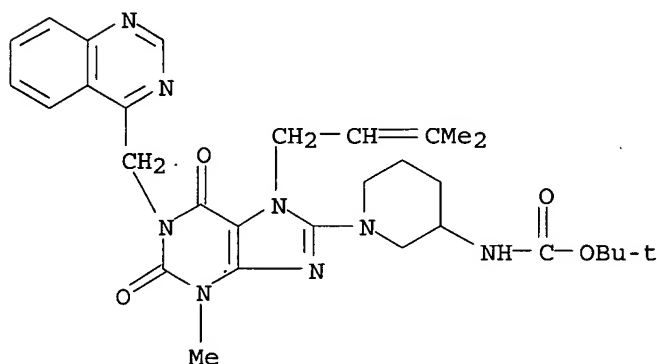
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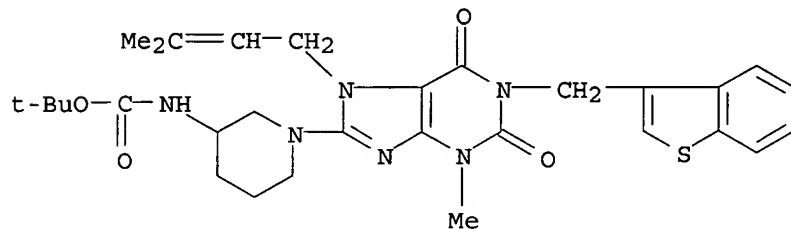
RN 668273-09-4 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1-(4-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



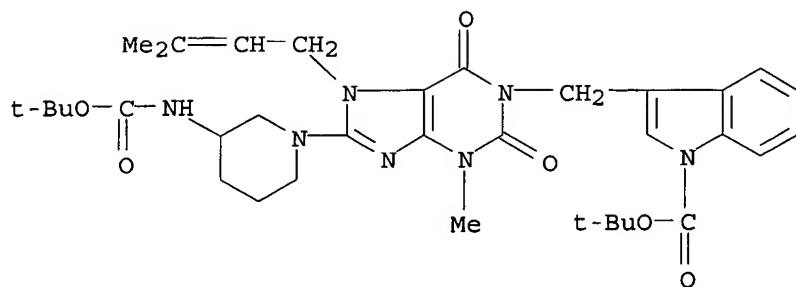
RN 668273-20-9 CAPLUS

CN Carbamic acid, [1-[1-(benzo[b]thien-3-ylmethyl)-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



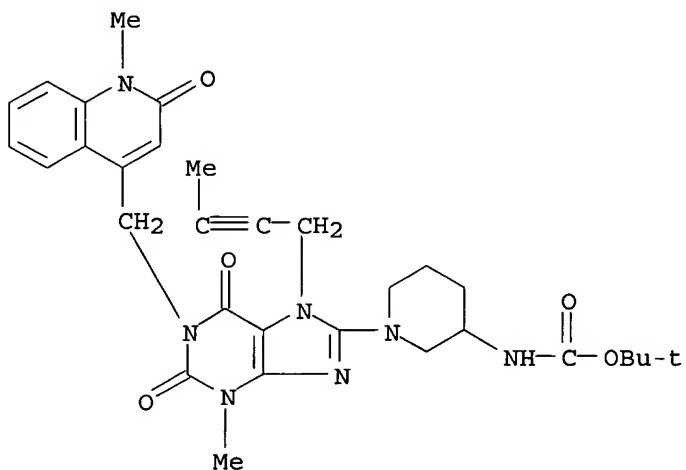
RN 668273-21-0 CAPLUS

CN 1H-Indole-1-carboxylic acid, 3-[[8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-1-yl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



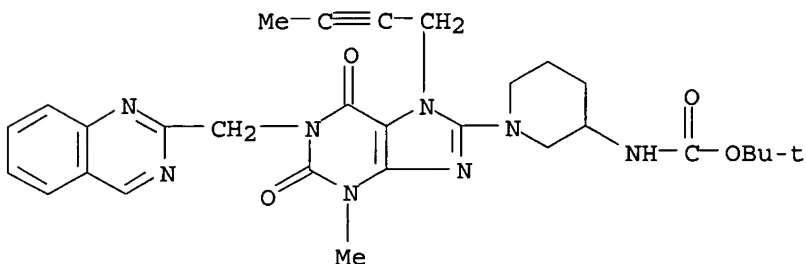
RN 668273-24-3 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-1-[(1,2-dihydro-1-methyl-2-oxo-4-quinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-27-6 CAPLUS

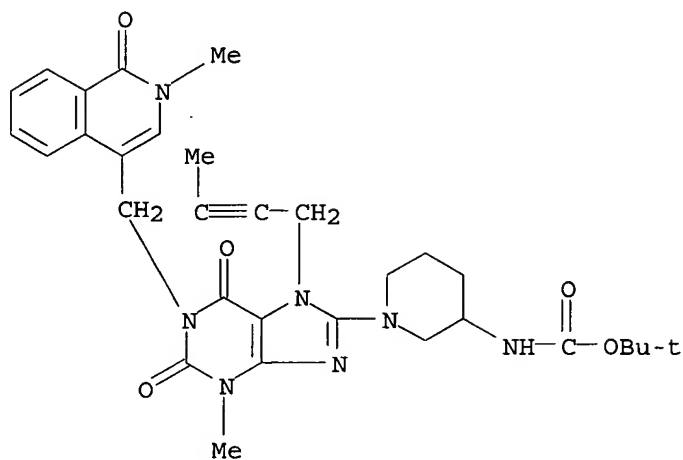
CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-31-2 CAPLUS

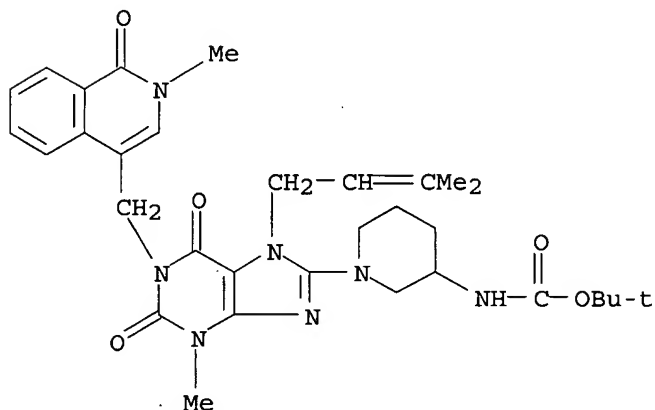
CN Carbamic acid, [1-[7-(2-butynyl)-1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



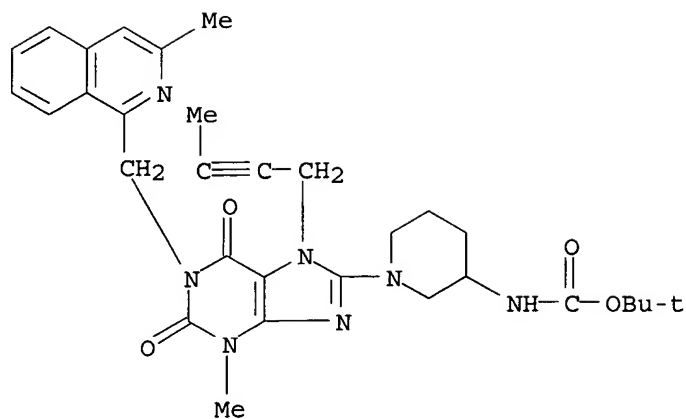
RN 668273-32-3 CAPLUS

CN Carbamic acid, [1-[1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



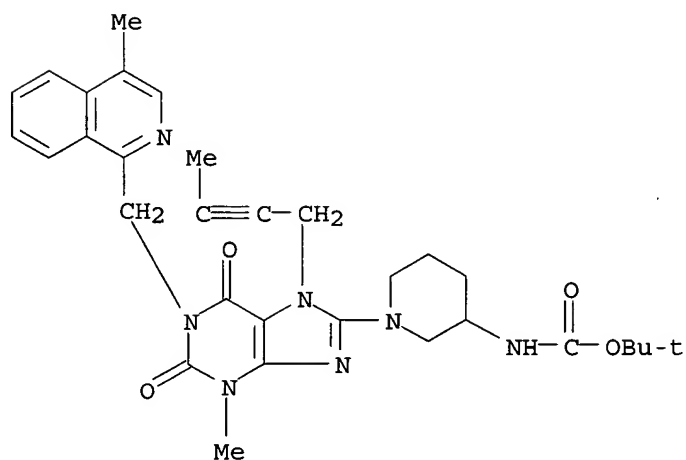
RN 668273-35-6 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



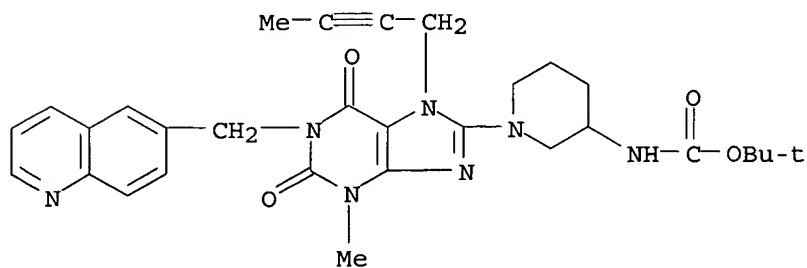
RN 668273-39-0 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



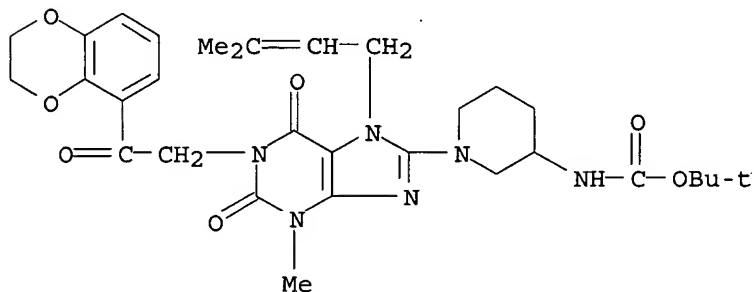
RN 668273-42-5 CAPLUS

CN Carbamic acid, [1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(6-quinolinyl)methyl]-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



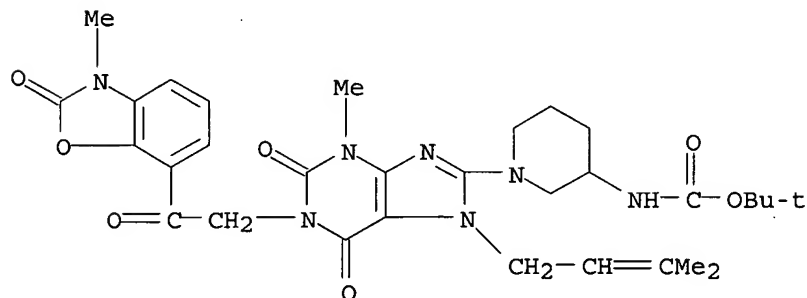
RN 668273-44-7 CAPLUS

CN Carbamic acid, [1-[1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



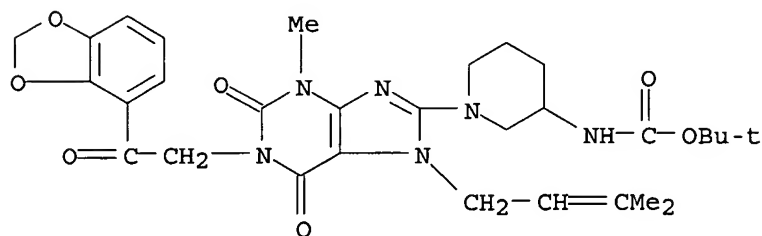
RN 668273-45-8 CAPLUS

CN Carbamic acid, [1-[1-[2-(2,3-dihydro-3-methyl-2-oxo-7-benzoxazolyl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-46-9 CAPLUS

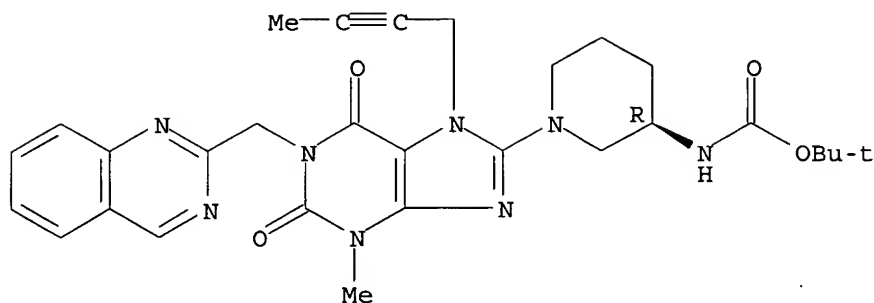
CN Carbamic acid, [1-[1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668273-47-0 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

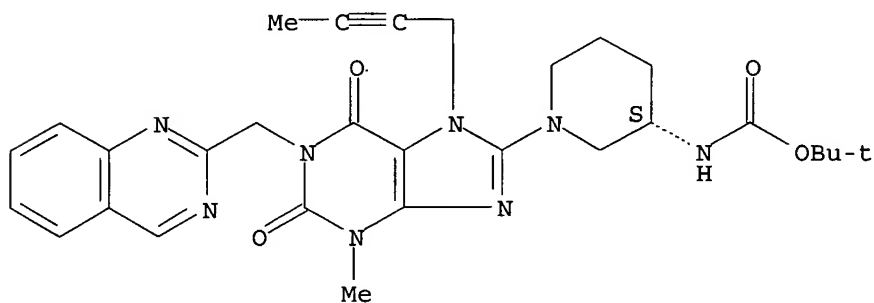
Absolute stereochemistry.



RN 668273-48-1 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

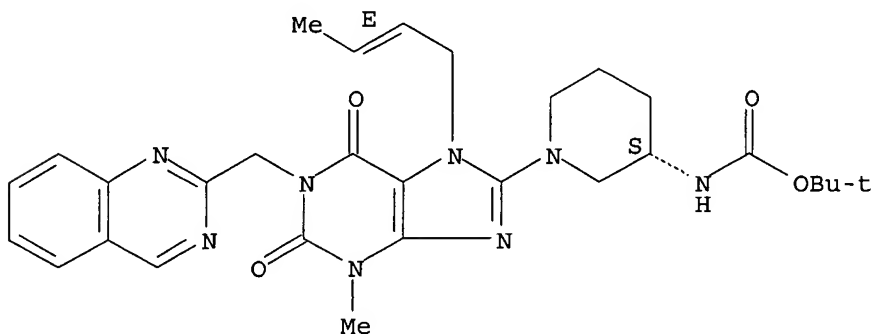


RN 668273-49-2 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1-(2-quinazolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

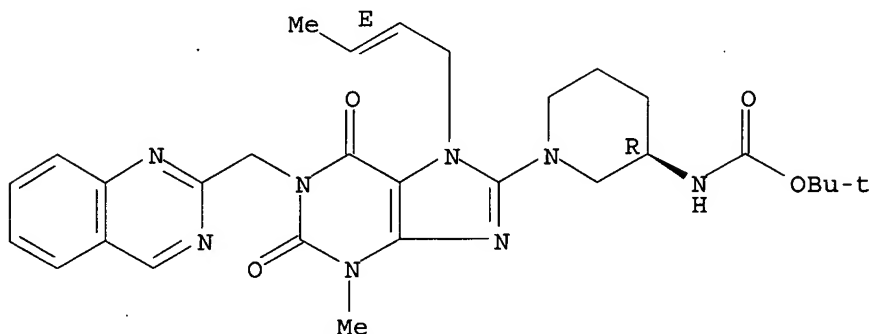
Absolute stereochemistry.

Double bond geometry as shown.



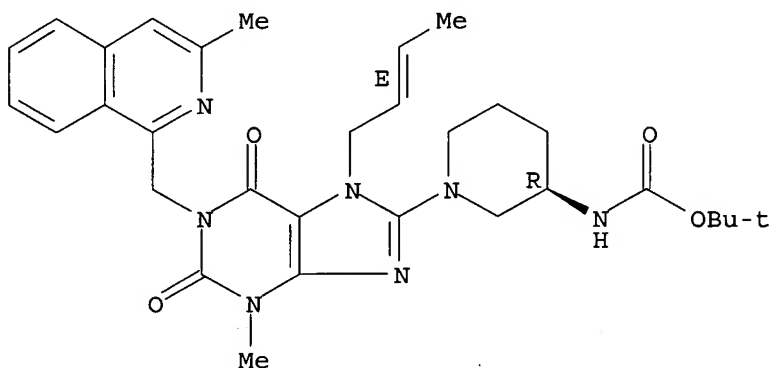
RN 668273-50-5 CAPLUS

Absolute stereochemistry.
Double bond geometry as shown.



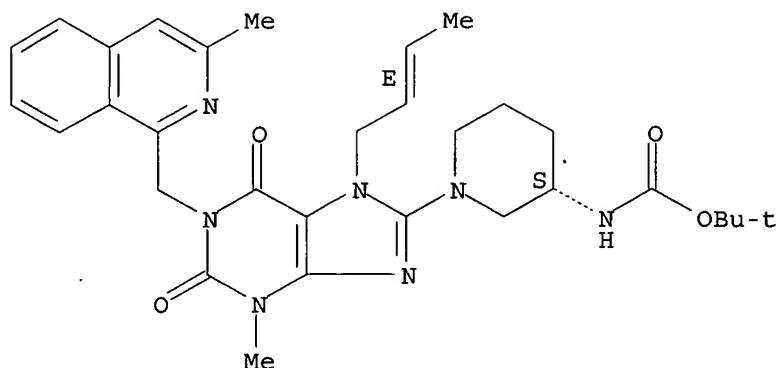
CN Carbamic acid, [(3R)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



CN Carbamic acid, [(3S)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

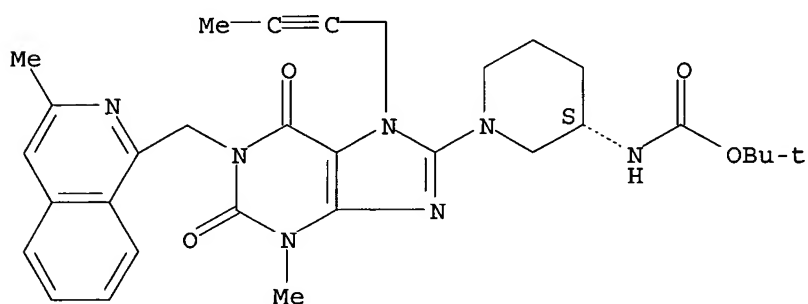
Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-62-9 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

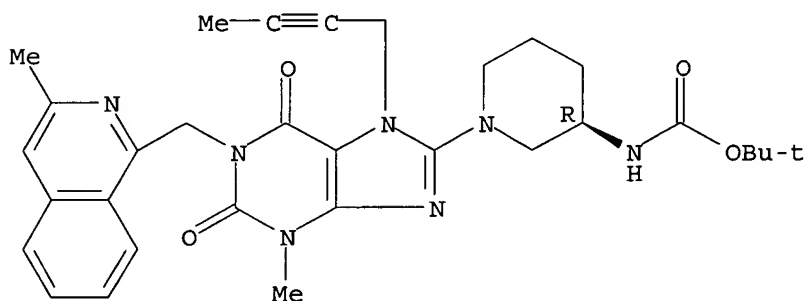
Absolute stereochemistry.



RN 668273-63-0 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

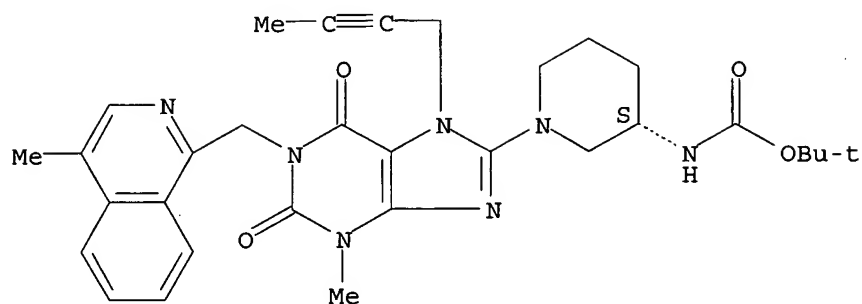
Absolute stereochemistry.



RN 668273-64-1 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

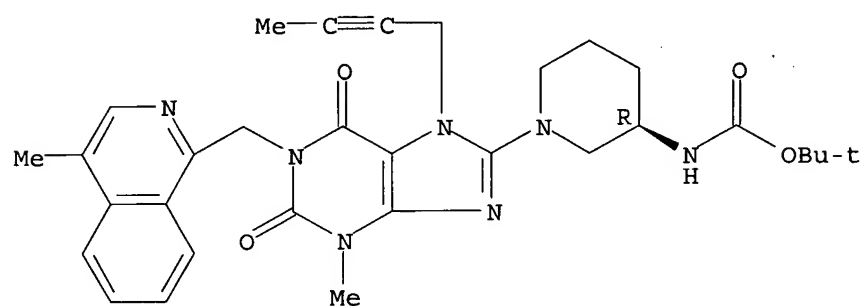
Absolute stereochemistry.



RN 668273-65-2 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

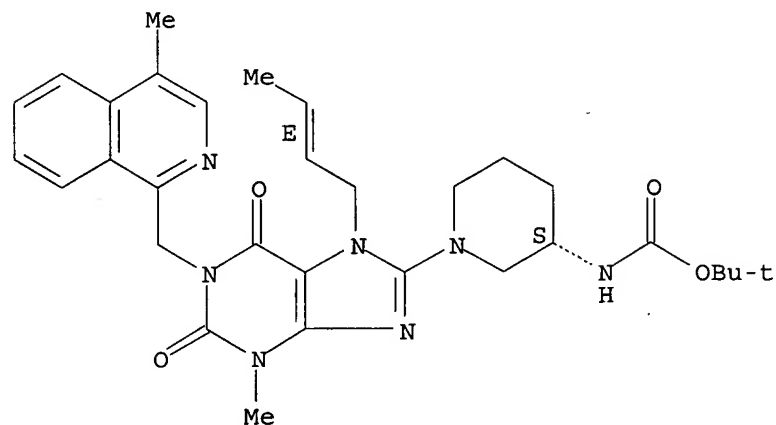
Absolute stereochemistry.



RN 668273-66-3 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

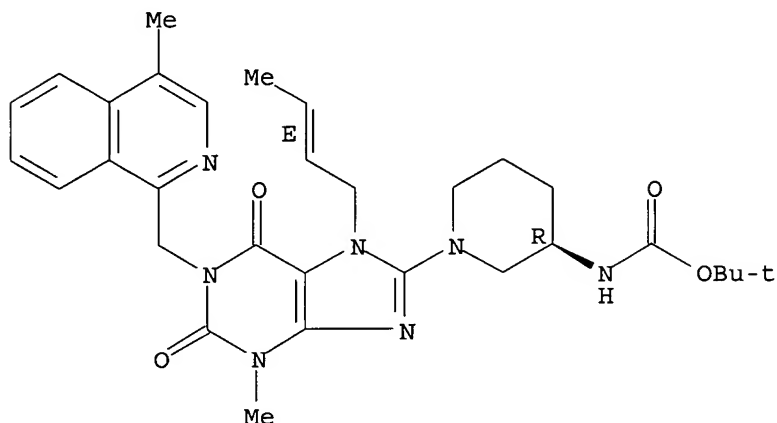
Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-67-4 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2E)-2-butenyl-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

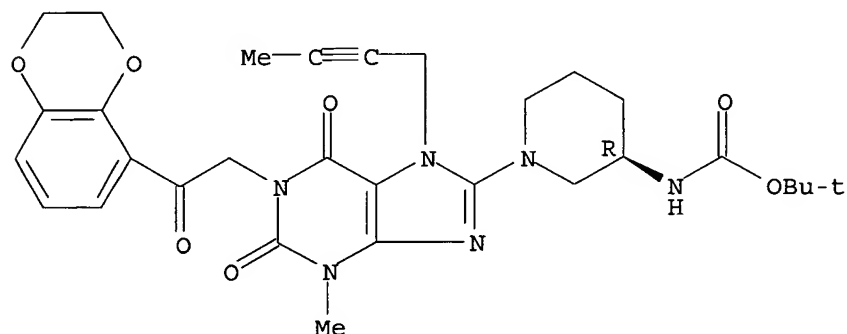
Absolute stereochemistry.
Double bond geometry as shown.



RN 668273-68-5 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

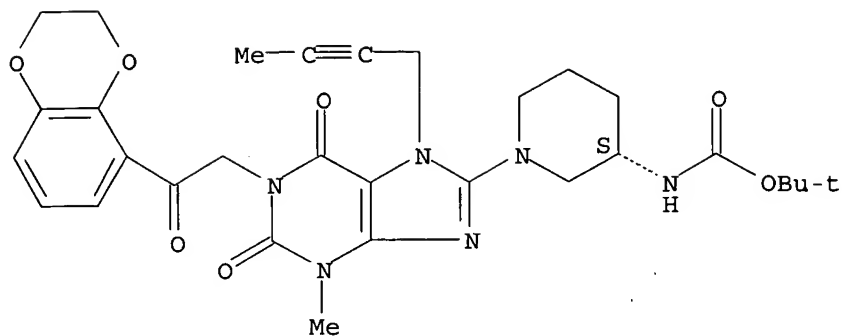
Absolute stereochemistry.



RN 668273-69-6 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

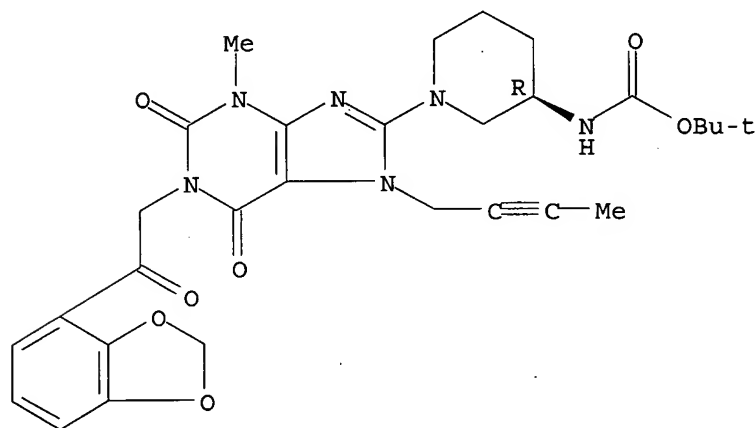
Absolute stereochemistry.



RN 668273-72-1 CAPLUS

CN Carbamic acid, [(3R)-1-[1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

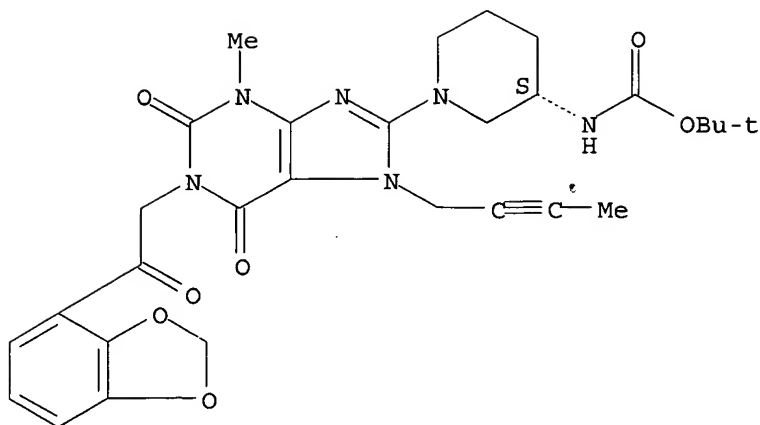
Absolute stereochemistry.



RN 668273-73-2 CAPLUS

CN Carbamic acid, [(3S)-1-[1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

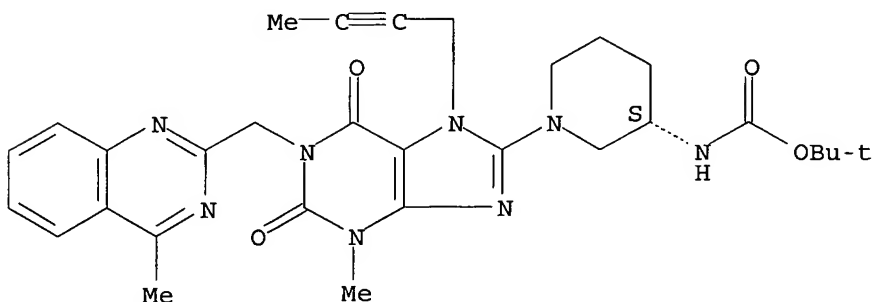
Absolute stereochemistry.



RN 668273-74-3 CAPLUS

CN Carbamic acid, [(3S)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

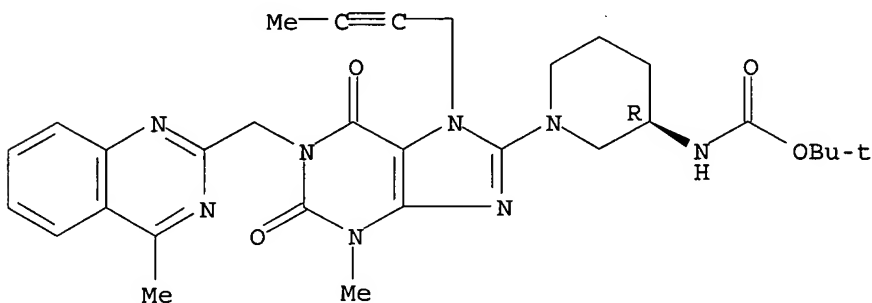
Absolute stereochemistry.



RN 668273-75-4 CAPLUS

CN Carbamic acid, [(3R)-1-[7-(2-butynyl)-2,3,6,7-tetrahydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

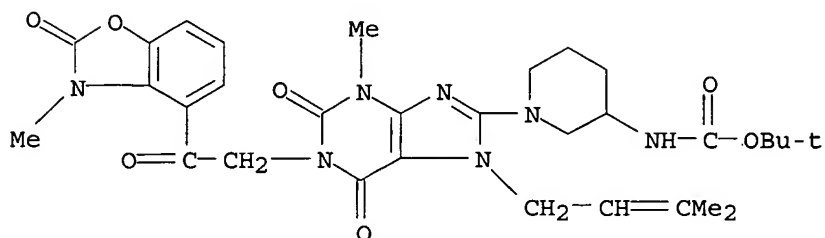
Absolute stereochemistry.



RN 668273-76-5 CAPLUS

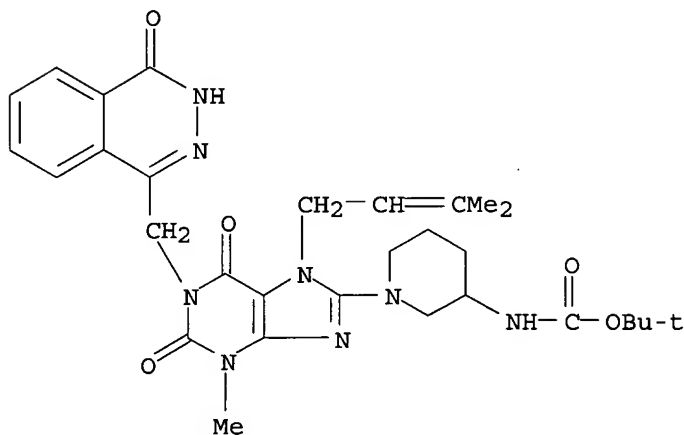
CN Carbamic acid, [1-[1-[2-(2,3-dihydro-3-methyl-2-oxo-4-benzoxazolyl)-2-

oxoethyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



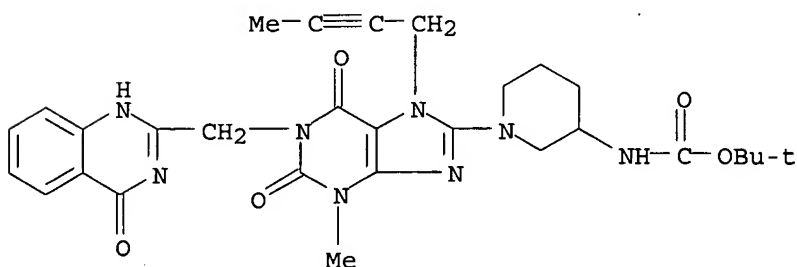
RN 668275-22-7 CAPLUS

CN Carbamic acid, [1-[1-[(3,4-dihydro-4-oxo-1-phthalazinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668275-84-1 CAPLUS

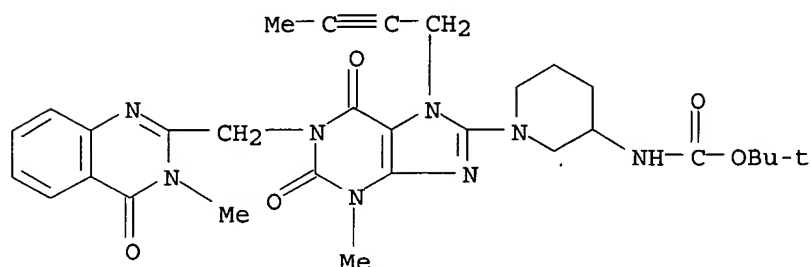
CN Carbamic acid, [1-[7-(2-butynyl)-1-[(1,4-dihydro-4-oxo-2-quinazolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 668275-95-4 CAPLUS

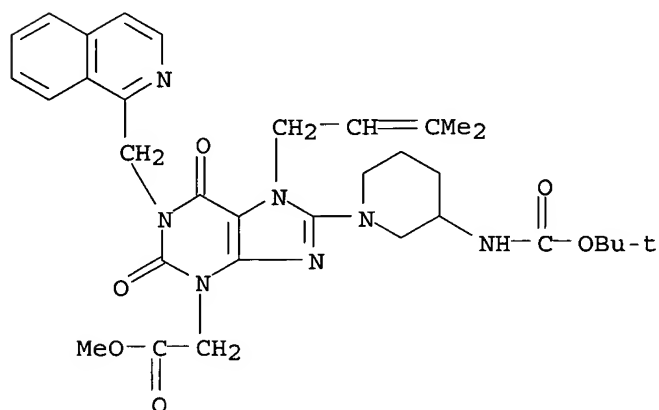
CN Carbamic acid, [1-[7-(2-butynyl)-1-[(3,4-dihydro-3-methyl-4-oxo-2-

quinazolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



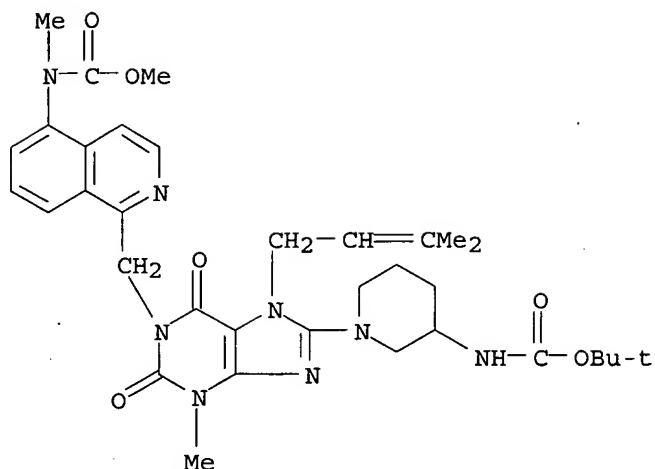
RN 668485-94-7 CAPLUS

CN 3H-Purine-3-acetic acid, 8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-1,2,6,7-tetrahydro-1-(1-isoquinolinylmethyl)-7-(3-methyl-2-butenyl)-2,6-dioxo-, methyl ester (9CI) (CA INDEX NAME)



RN 668485-98-1 CAPLUS

CN Carbamic acid, [1-[[[8-[3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-1-yl]methyl]-5-isoquinolinyl]methyl]-, methyl ester (9CI) (CA INDEX NAME)



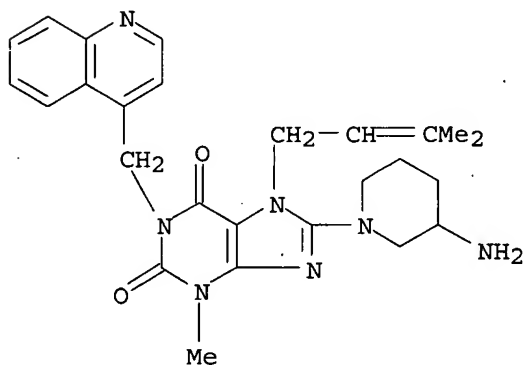
IT 454708-76-0P 668268-90-4P 668268-91-5P
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 668269-30-5P 668269-31-6P 668269-33-8P
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 668269-42-9P 668269-44-1P 668269-46-3P
 668269-47-4P 668269-48-5P 668269-49-6P
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 668270-12-0P 668270-13-1P 668485-69-6P
 668485-82-3P 668486-00-8P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and inhibiting activity of 8-[3-aminopiperidin-1-yl]xanthines against dipeptidylpeptidase IV)

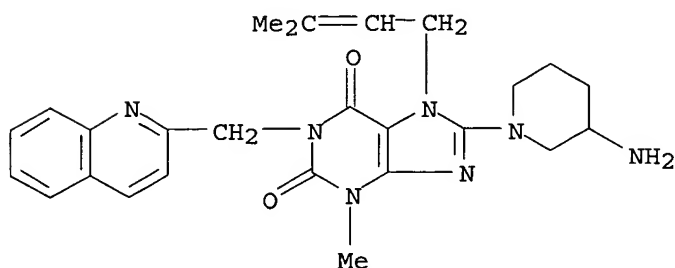
RN 454708-76-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-(4-quinolinylmethyl)- (9CI) (CA INDEX NAME)



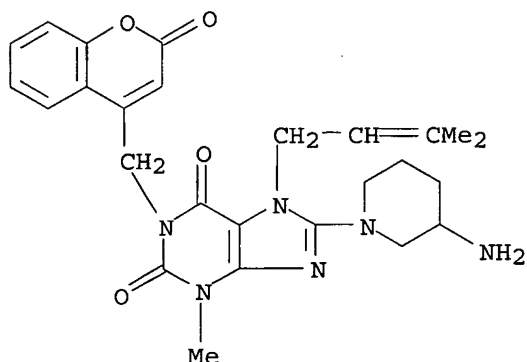
RN 668268-90-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-(2-quinolinylmethyl)- (9CI) (CA INDEX NAME)



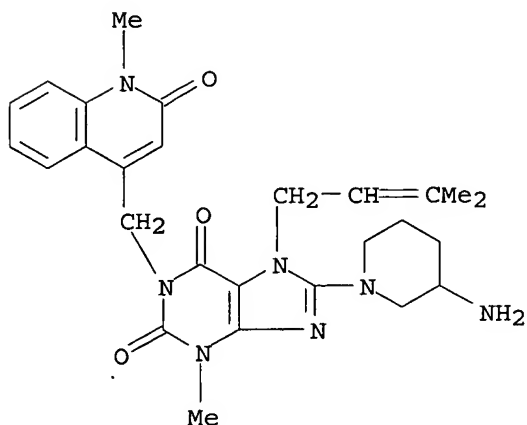
RN 668268-91-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-[(2-oxo-2H-1-benzopyran-4-yl)methyl]- (9CI) (CA INDEX NAME)

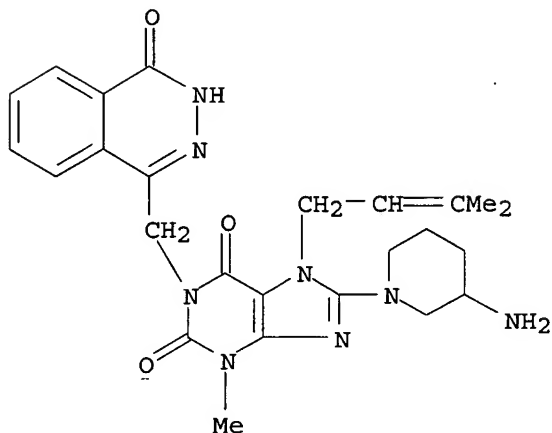


RN 668268-93-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(1,2-dihydro-1-methyl-2-oxo-4-quinolinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)

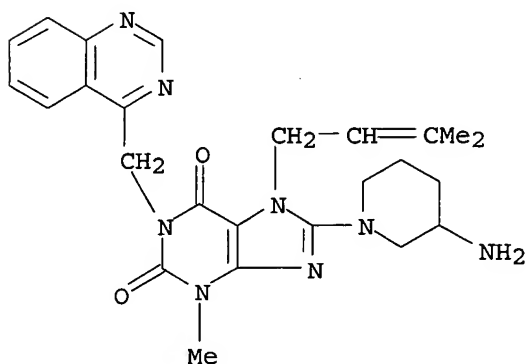


RN 668268-94-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(3,4-dihydro-4-oxo-1-phthalazinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI)
(CA INDEX NAME)

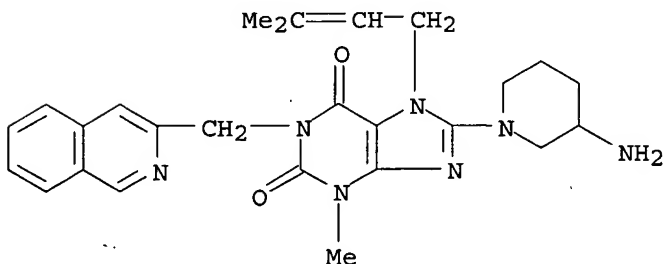
RN 668268-95-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-(4-quinazolinylmethyl)- (9CI) (CA INDEX NAME)



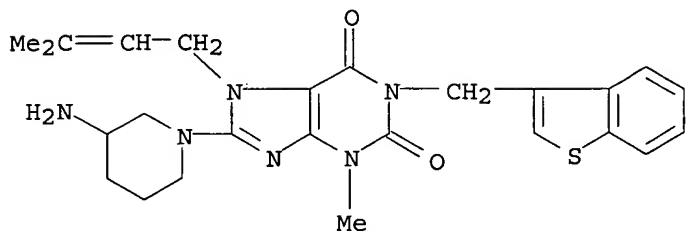
RN 668268-97-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-1-(3-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



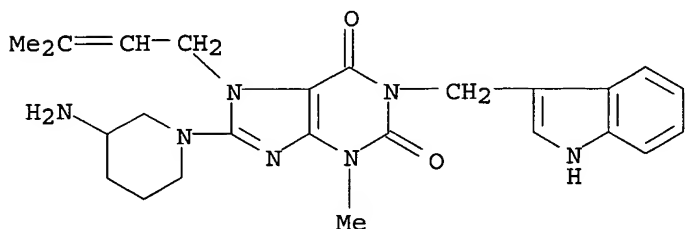
RN 668269-17-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(benzo[b]thien-3-ylmethyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



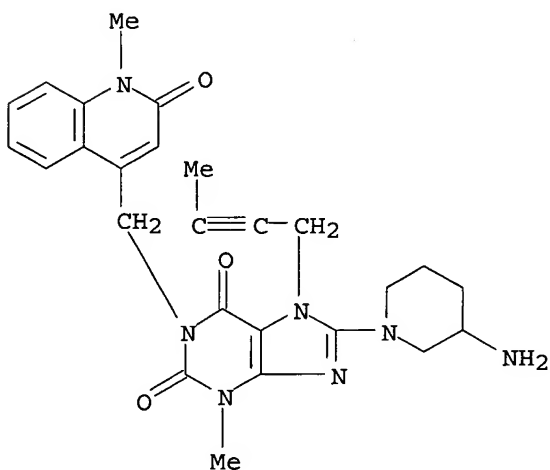
RN 668269-18-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-1-(1H-indol-3-ylmethyl)-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



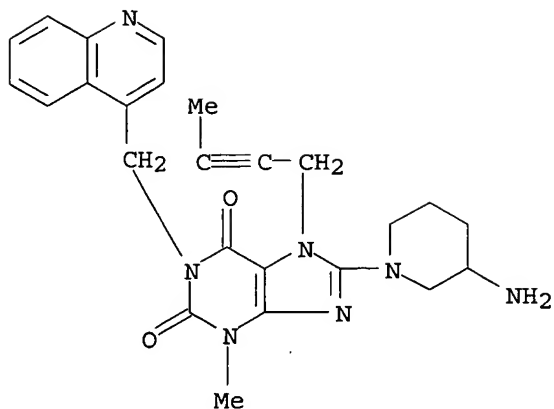
RN 668269-21-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butyryl)-1-[(1,2-dihydro-1-methyl-2-oxo-4-quinolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



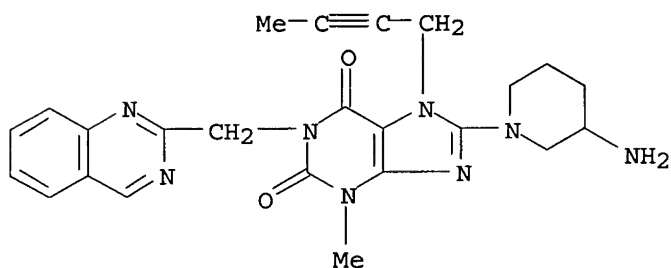
RN 668269-22-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butyryl)-3,7-dihydro-3-methyl-1-(4-quinolinylmethyl)- (9CI) (CA INDEX NAME)



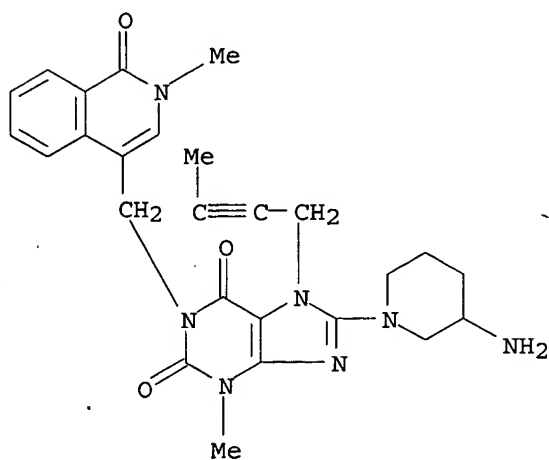
RN 668269-25-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

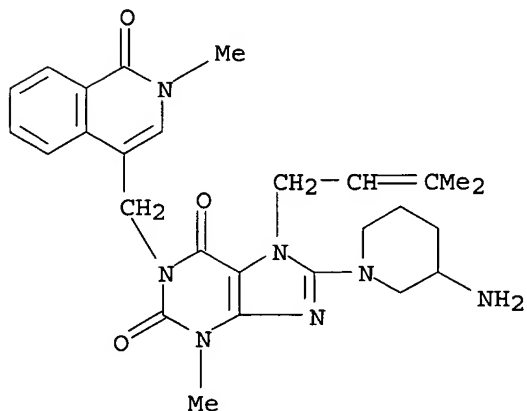


RN 668269-30-5 CAPLUS

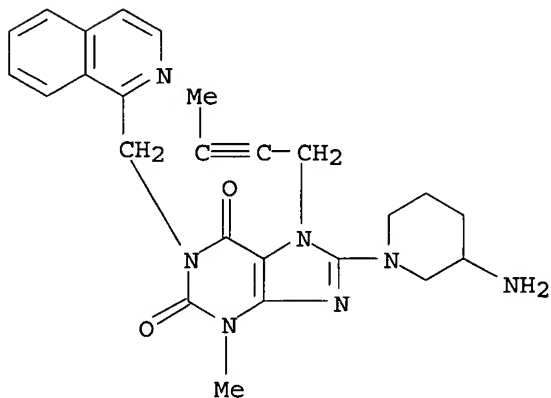
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



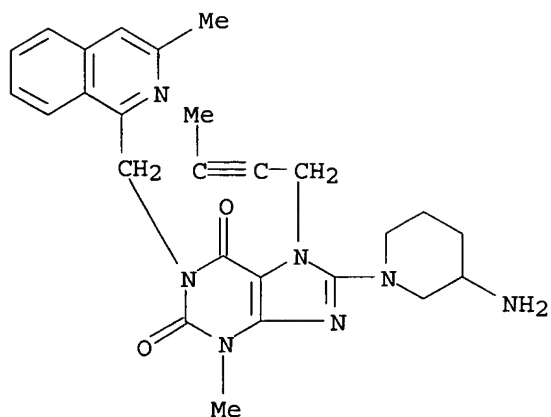
RN 668269-31-6 CAPLUS
 CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(1,2-dihydro-2-methyl-1-oxo-4-isoquinolinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 668269-33-8 CAPLUS
 CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butyryl)-3,7-dihydro-1-(1-isoquinolinylmethyl)-3-methyl- (9CI) (CA INDEX NAME)

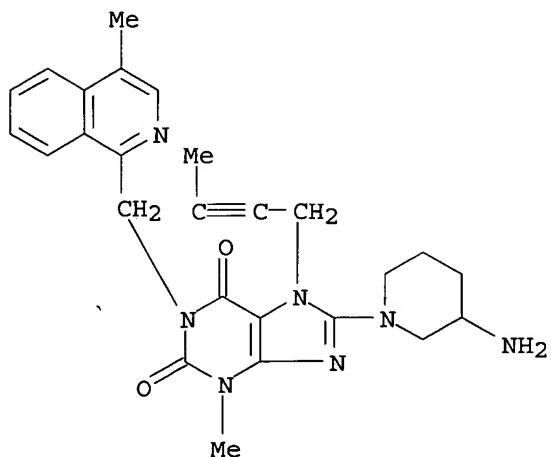


RN 668269-35-0 CAPLUS
 CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butyryl)-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)



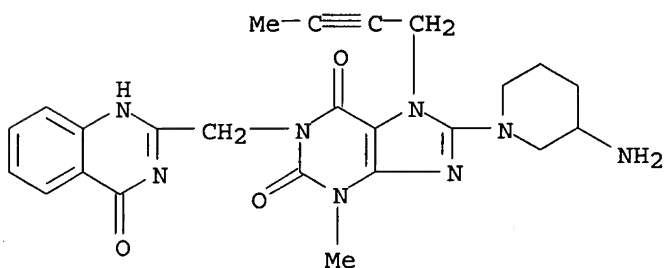
RN 668269-39-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinolyl)methyl]- (9CI) (CA INDEX NAME)



RN 668269-41-8 CAPLUS

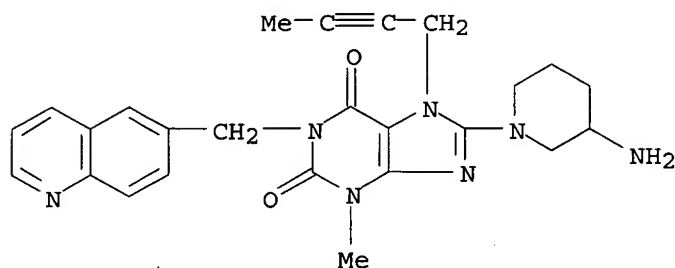
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(1,4-dihydro-4-oxo-2-quinazolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 668269-42-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-3,7-dihydro-3-

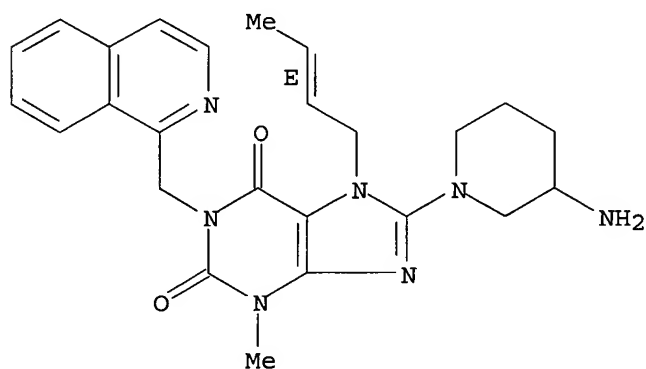
methyl-1-(6-quinolinylmethyl)- (9CI) (CA INDEX NAME)



RN 668269-44-1 CAPLUS

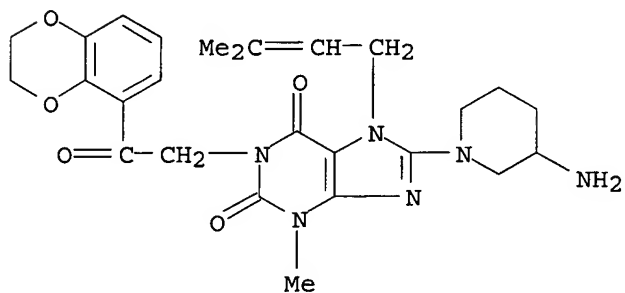
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2E)-2-butenyl-3,7-dihydro-1-(1-isoquinolinylmethyl)-3-methyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



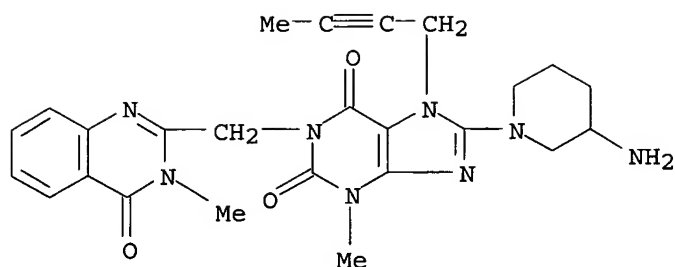
RN 668269-46-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



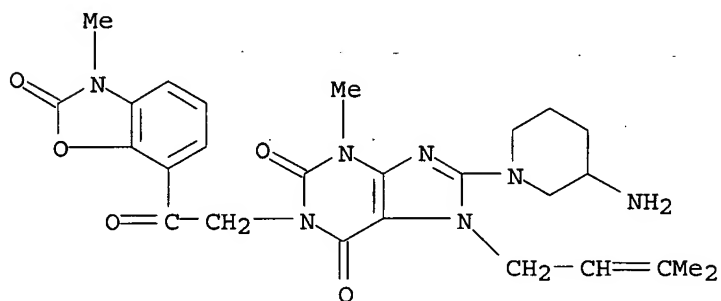
RN 668269-47-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-7-(2-butynyl)-1-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



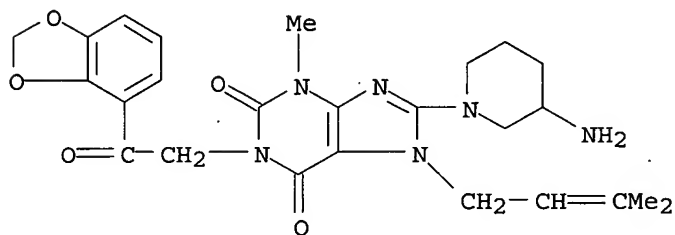
RN 668269-48-5 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(2,3-dihydro-3-methyl-2-oxo-7-benzoxazolyl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 668269-49-6 CAPLUS

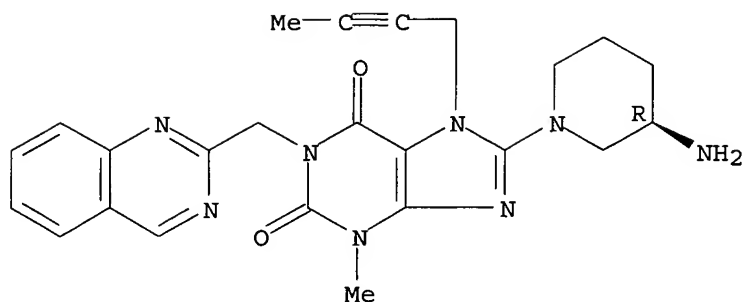
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 668269-50-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

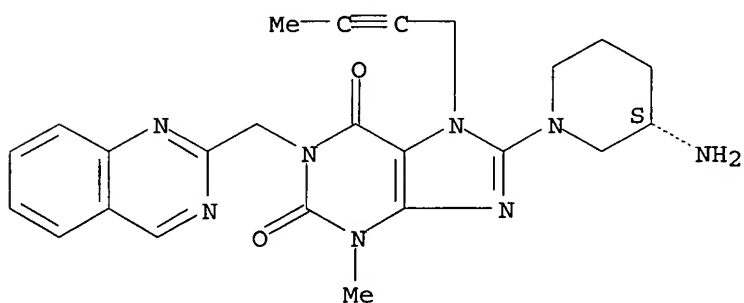
Absolute stereochemistry.



RN 668269-51-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

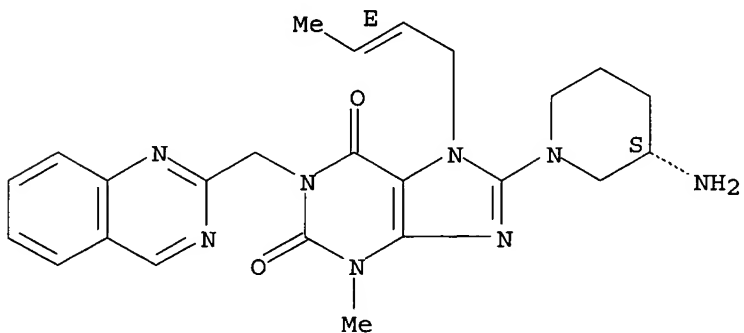


RN 668269-52-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

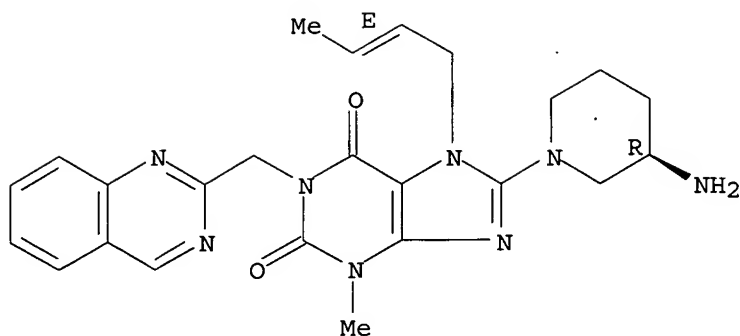


RN 668269-53-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-(2-quinazolinylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

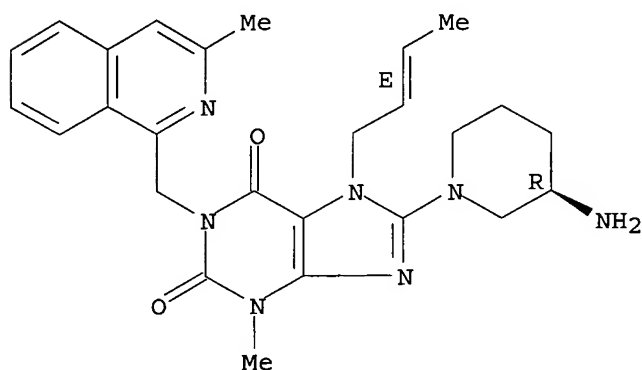
Double bond geometry as shown.



RN 668269-54-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

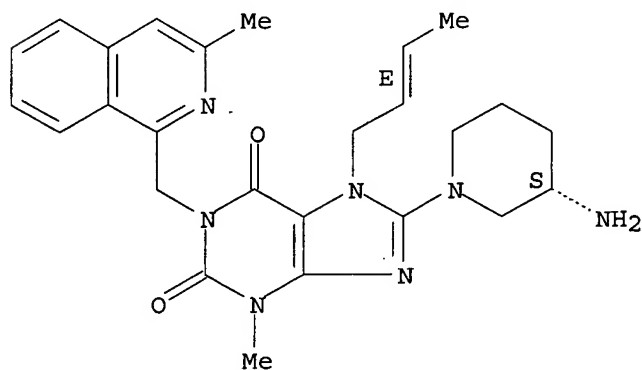
Absolute stereochemistry.
Double bond geometry as shown.



RN 668269-55-4 CAPLUS

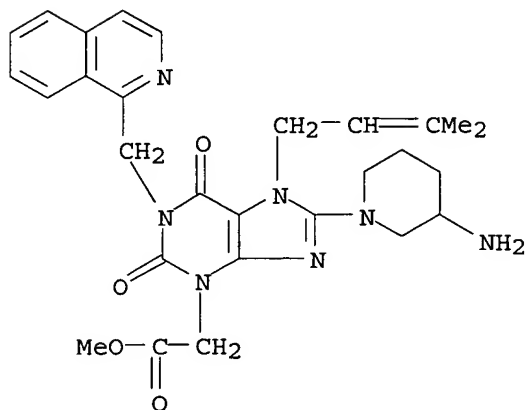
CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 668269-65-6 CAPLUS

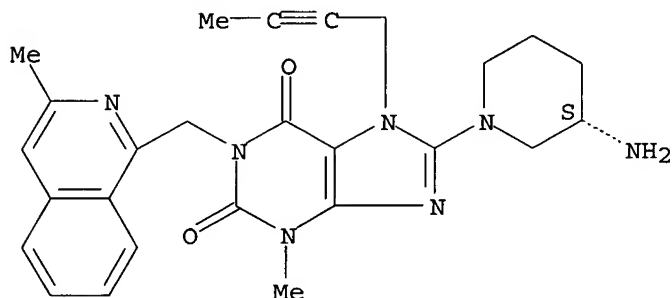
CN 3H-Purine-3-acetic acid, 8-(3-amino-1-piperidinyl)-1,2,6,7-tetrahydro-1-(1-isoquinolinylmethyl)-7-(3-methyl-2-butenyl)-2,6-dioxo-, methyl ester (9CI)
(CA INDEX NAME)



RN 668269-99-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

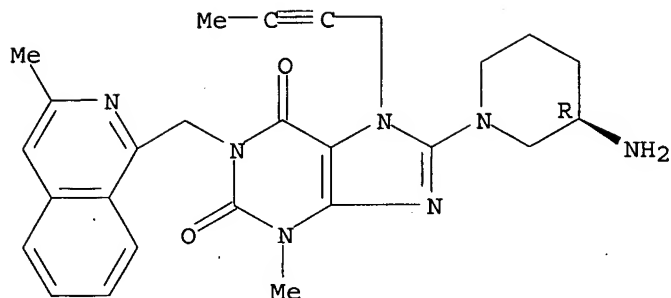
Absolute stereochemistry.



RN 668270-00-6 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(3-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

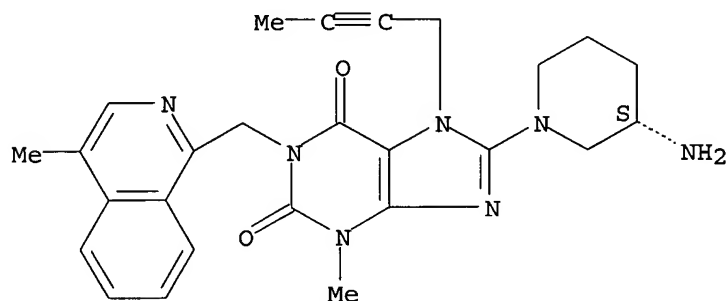
Absolute stereochemistry.



RN 668270-01-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidiny]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

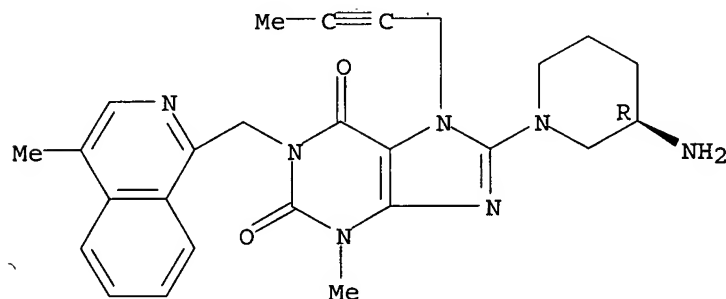
Absolute stereochemistry.



RN 668270-02-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidiny]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

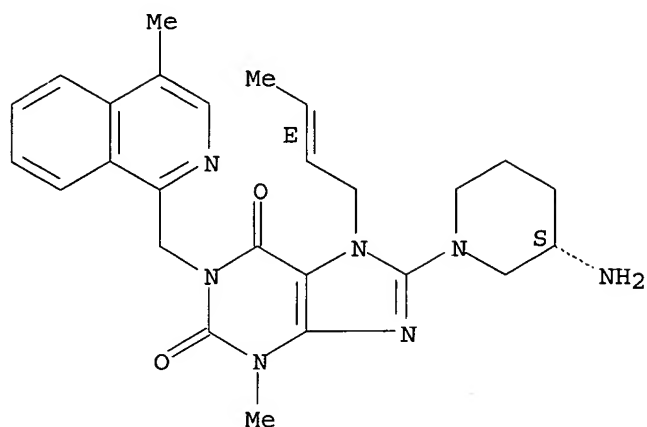


RN 668270-03-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidiny]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinoliny)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

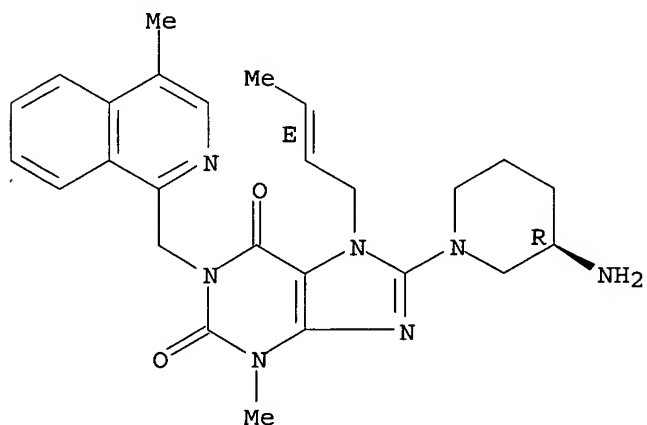
Double bond geometry as shown.



RN 668270-04-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2E)-2-butenyl-3,7-dihydro-3-methyl-1-[(4-methyl-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

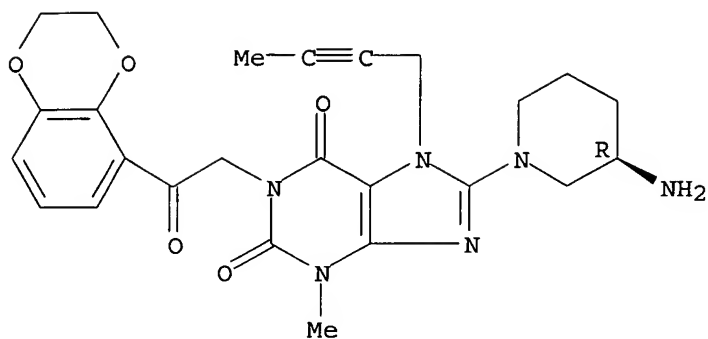
Absolute stereochemistry.
Double bond geometry as shown.



RN 668270-05-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

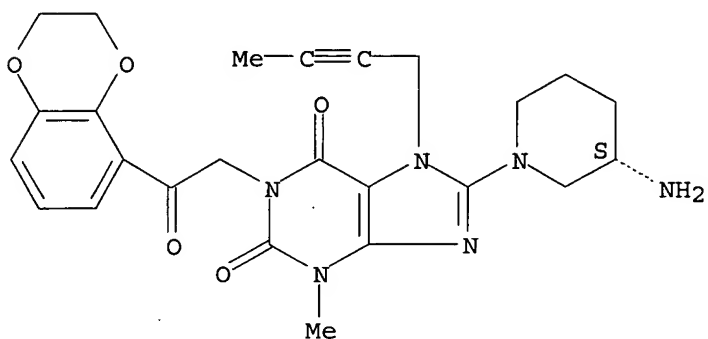
Absolute stereochemistry.



RN 668270-06-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-1-[2-(2,3-dihydro-1,4-benzodioxin-5-yl)-2-oxoethyl]-3,7-dihydro-3-methyl- (9CI)
(CA INDEX NAME)

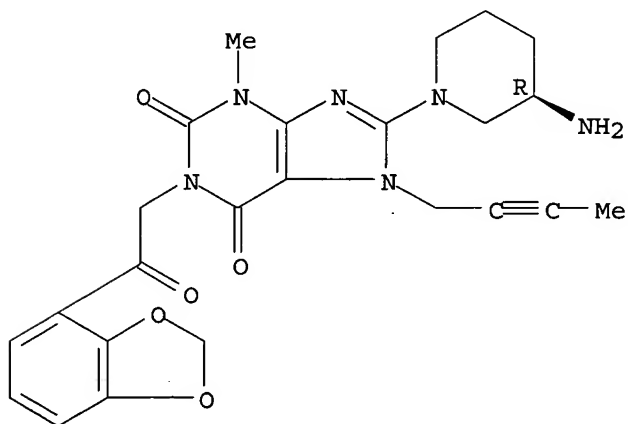
Absolute stereochemistry.



RN 668270-09-5 CAPLUS

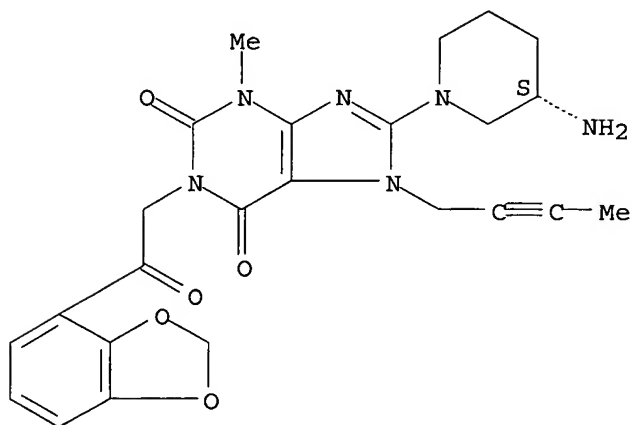
CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



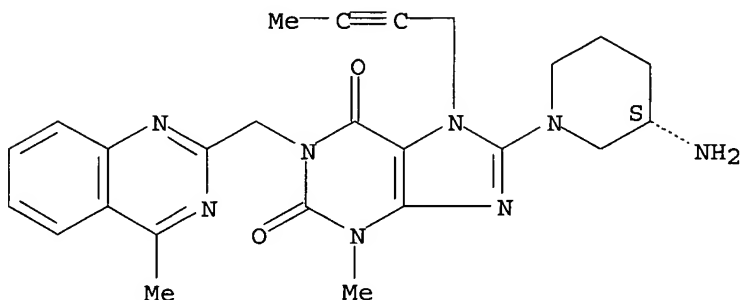
RN 668270-10-8 CAPLUS
 CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-1-[2-(1,3-benzodioxol-4-yl)-2-oxoethyl]-7-(2-butynyl)-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



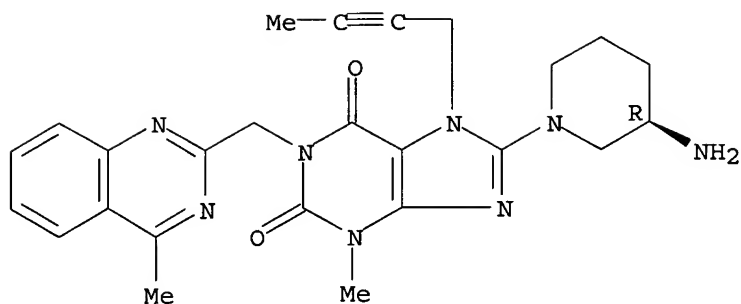
RN 668270-11-9 CAPLUS
 CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



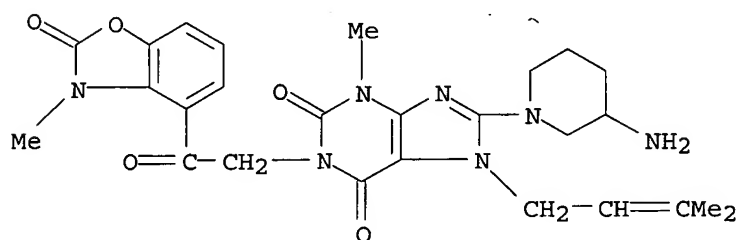
RN 668270-12-0 CAPLUS
 CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-7-(2-butynyl)-3,7-dihydro-3-methyl-1-[(4-methyl-2-quinazolinyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



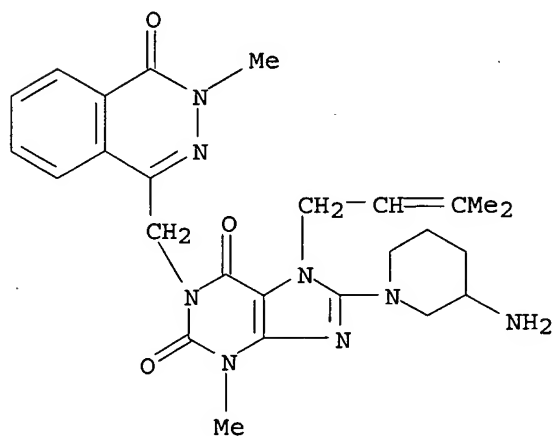
RN 668270-13-1 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[2-(2,3-dihydro-3-methyl-2-oxo-4-benzoxazolyl)-2-oxoethyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 668485-69-6 CAPLUS

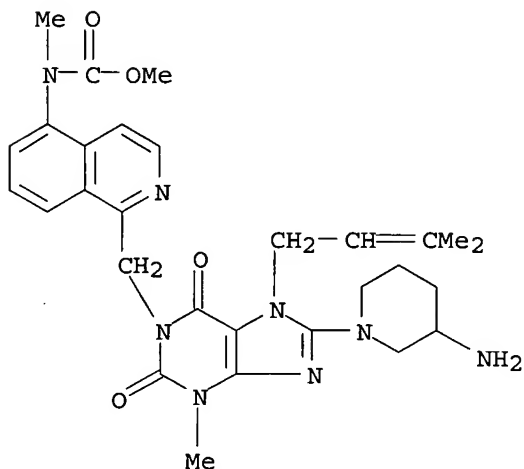
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(3,4-dihydro-3-methyl-4-oxo-1-phthalazinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

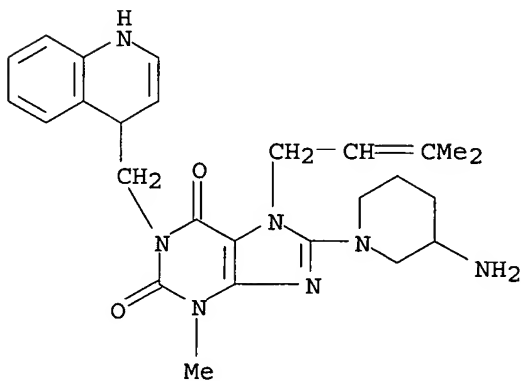
RN 668485-82-3 CAPLUS

CN Carbamic acid, [1-[[8-(3-amino-1-piperidiny1)-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-1-yl]methyl]-5-isoquinolinyl]methyl-, methyl ester (9CI) (CA INDEX NAME)



RN 668486-00-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidiny1)-1-[(1,4-dihydro-4-quinolinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



L8 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:42273 CAPLUS

DOCUMENT NUMBER: 138:106535

TITLE: Preparation of dipeptidyl peptidase IV (DPP-IV) inhibiting purine derivatives for the treatment of diabetes

INVENTOR(S): Kanstrup, Anders Bendtz; Sams, Christian Klarner; Lundbeck, Jane Marie; Christiansen, Lise Brown; Kristiansen, Marit

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.

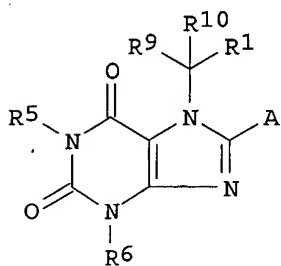
SOURCE: PCT Int. Appl., 102 pp.

CODEN: PIXXD2

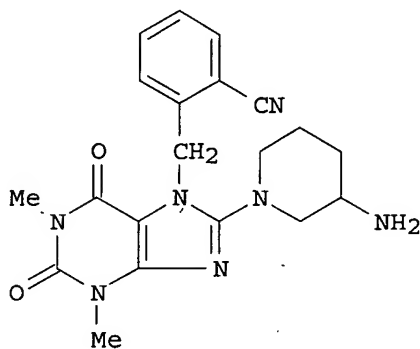
DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004496	A1	20030116	WO 2002-DK439	20020627
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1404675	A1	20040407	EP 2002-748629	20020627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005502624	T2	20050127	JP 2003-510663	20020627
US 2003105077	A1	20030605	US 2002-186498	20020628
US 6869947	B2	20050322		
PRIORITY APPLN. INFO.:			DK 2001-1049	A 20010703
			DK 2002-180	A 20020206
			US 2001-309621P	P 20010802
			US 2002-356631P	P 20020208
			WO 2002-DK439	W 20020627

OTHER SOURCE(S): MARPAT 138:106535
 GI



I



II

AB Purine derivs, such as I [A = nitrogen bound amino substituted or unsubstituted heterocycle, such as 3-aminopiperidin-1-yl, 3-aminopyrrolidin-1-yl, or 3-aminoazepin-1-yl; R1 = substituted or unsubstituted Ph, or heteroaryl, such as 3-thienyl; R5 = H, alkyl, alkenyl, alkynyl, cycloalkyl, arylalkyl, heteroarylalkyl, arylcarbonylmethyl, etc.; R6 = alkyl, alkenyl, alkynyl, cycloalkyl, arylalkyl, heteroarylalkyl, etc.; R9, R10 = H, alkyl], were prepared for therapeutic use as DPP-IV inhibitors for treating diseases that are associated with proteins that are subject to inactivation by DPP-IV, such as type 2 diabetes and obesity. Thus, the trifluoroacetate salt of purine derivative II was prepared via benzylation of 8-chlorotheophylline with 2-cyanobenzyl bromide using K₂CO₃ and KI in DMF to give

2-[(8-chloro-1,2,3,6-tetrahydro-1,3-dimethyl-2,6-dioxo-7H-purin-7-yl)methyl]benzonitrile in 93% yield, and subsequent amination of the benzylated 8-chloropurine with 3-piperidinamine dihydrochloride using Et₃N in 2-propanol followed by preparative HPLC to give the desired II.TFA in 43% yield. The prepared purines were tested for their ability to inhibit the activity of porcine CD26/DPP-IV.

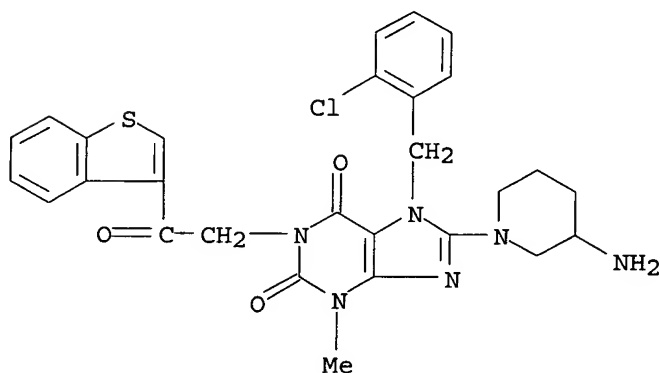
IT 485820-95-9P 485821-10-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of dipeptidyl peptidase IV (DPP-IV) inhibiting purine derivs. for treatment of diabetes)

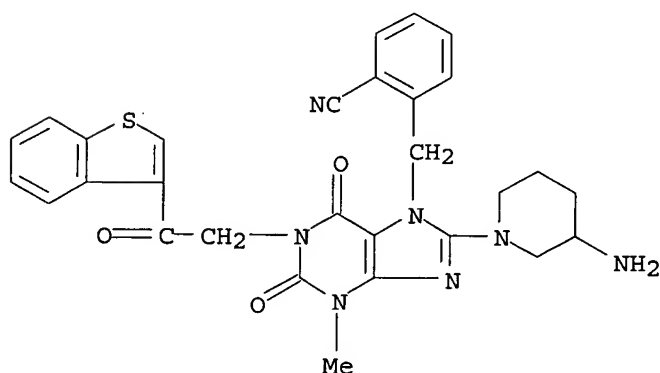
RN 485820-95-9 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(2-benzo[b]thien-3-yl-2-oxoethyl)-7-[(2-chlorophenyl)methyl]-3,7-dihydro-3-methyl- (9CI) (CA INDEX NAME)



RN 485821-10-1 CAPLUS

CN Benzonitrile, 2-[[8-(3-amino-1-piperidinyl)-1-(2-benzo[b]thien-3-yl-2-oxoethyl)-1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-7H-purin-7-yl]methyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

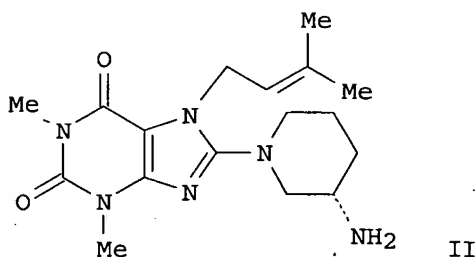
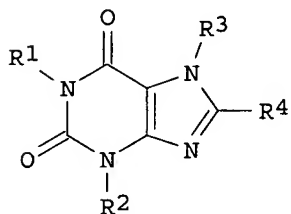
L8 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:676018 CAPLUS

DOCUMENT NUMBER: 137:216824
 TITLE: Preparation of xanthine derivatives as dipeptidylpeptidase-IV inhibitors
 INVENTOR(S): Himmelsbach, Frank; Mark, Michael; Eckhardt, Matthias; Langkopf, Elke; Maier, Roland; Lotz, Ralf
 PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany
 SOURCE: PCT Int. Appl., 373 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002068420	A1	20020906	WO 2002-EP1820	20020221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10109021	A1	20020905	DE 2001-10109021	20010224
DE 10117803	A1	20021024	DE 2001-10117803	20010410
DE 10140345	A1	20030227	DE 2001-10140345	20010817
DE 10203486	A1	20030731	DE 2002-10203486	20020130
CA 2435730	AA	20020906	CA 2002-2435730	20020221
EP 1368349	A1	20031210	EP 2002-701288	20020221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EE 200300409	A	20031215	EE 2003-409	20020221
BR 2002007767	A	20040330	BR 2002-7767	20020221
JP 2004522786	T2	20040729	JP 2002-567932	20020221
BG 108093	A	20040831	BG 2003-108093	20030813
NO 2003003726	A	20030821	NO 2003-3726	20030821
US 2004077645	A1	20040422	US 2003-467961	20031205
PRIORITY APPLN. INFO.:			DE 2001-10109021	A 20010224
			DE 2001-10117803	A 20010410
			DE 2001-10140345	A 20010817
			DE 2002-10203486	A 20020130
			WO 2002-EP1820	W 20020221

OTHER SOURCE(S): MARPAT 137:216824
 GI

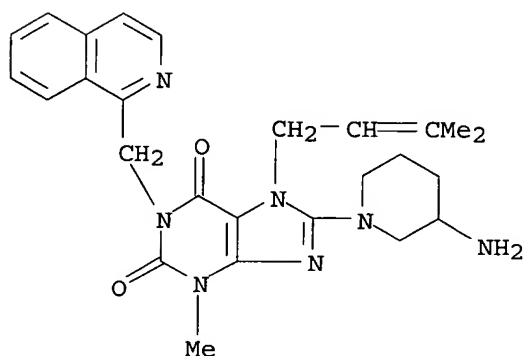


AB Xanthine derivs. of formula I [R1, R2 = H, alkyl, alkenyl, etc.; R3 = alkyl, arylalkyl, etc.; R4 = heterocyclyl, cycloalkyl, aminoalkyl, etc.] are prepared which exhibit an inhibitory effect on the activity of the dipeptidylpeptidase-IV enzyme. Pharmaceutical compns. containing I are described. Thus, II was prepared and had an IC50 of 22 nM against dipeptidylpeptidase-IV.

IT 454708-26-0P 454708-28-2P 454708-32-8P
 454708-34-0P 454708-38-4P 454708-52-2P
 454708-53-3P 454708-76-0P 454708-78-2P
 454708-79-3P 454708-81-7P 454708-82-8P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of xanthine derivs. as dipeptidylpeptidase-IV inhibitors)

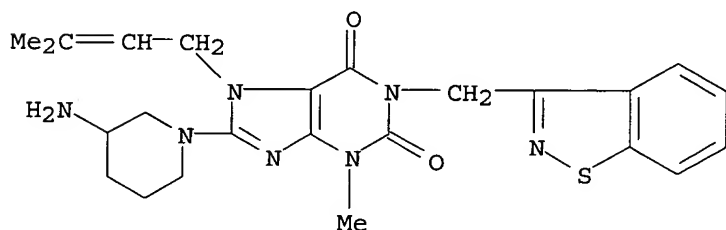
RN 454708-26-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-1-(1-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 454708-28-2 CAPLUS

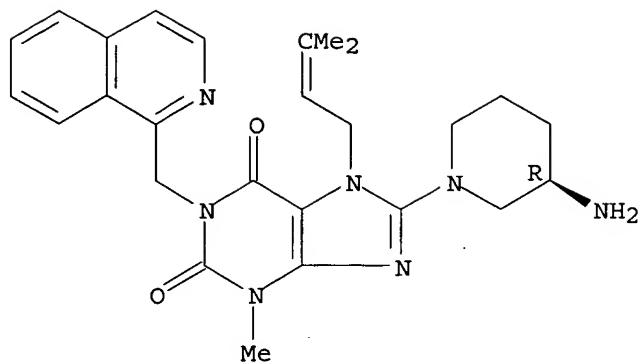
CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(1,2-benzisothiazol-3-ylmethyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



RN 454708-32-8 CAPLUS

CN 1H-Purine-2,6-dione, 8-[(3R)-3-amino-1-piperidinyl]-3,7-dihydro-1-(1-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)

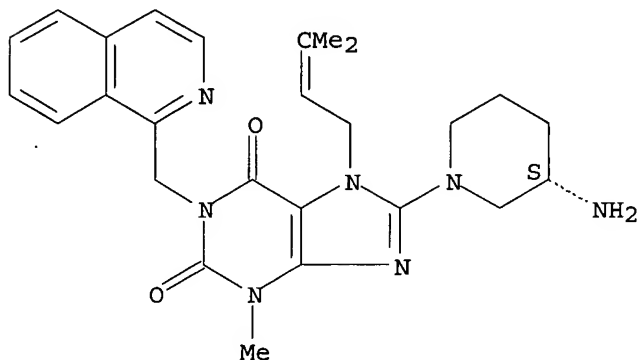
Absolute stereochemistry.



RN 454708-34-0 CAPLUS

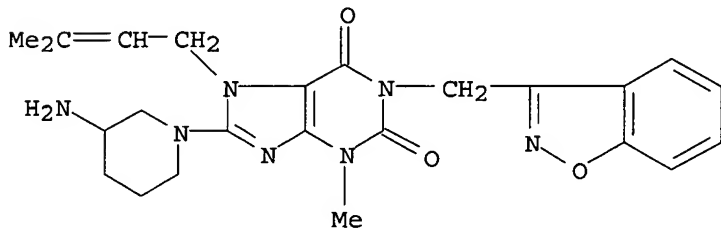
CN 1H-Purine-2,6-dione, 8-[(3S)-3-amino-1-piperidinyl]-3,7-dihydro-1-(1-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



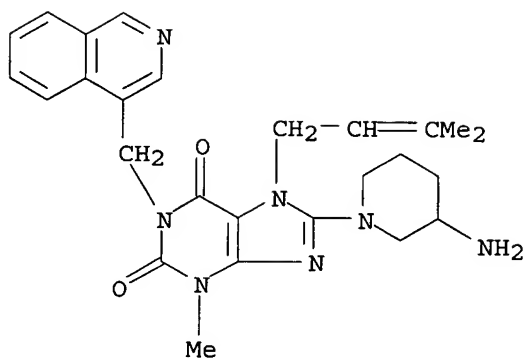
RN 454708-38-4 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-(1,2-benzisoxazol-3-ylmethyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



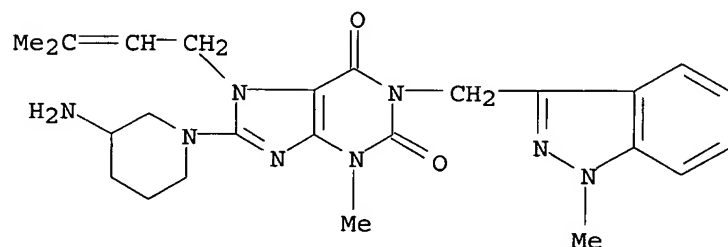
RN 454708-52-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-1-(4-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



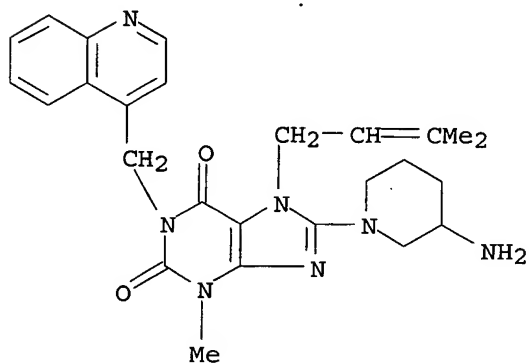
RN 454708-53-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-[(1-methyl-1H-indazol-3-yl)methyl]- (9CI) (CA INDEX NAME)



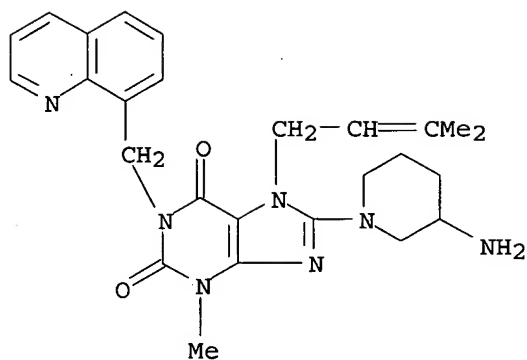
RN 454708-76-0 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-(4-quinolinylmethyl)- (9CI) (CA INDEX NAME)



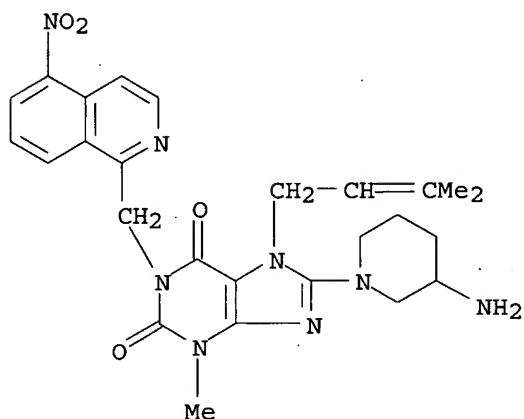
RN 454708-78-2 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-(8-quinolinylmethyl)- (9CI) (CA INDEX NAME)



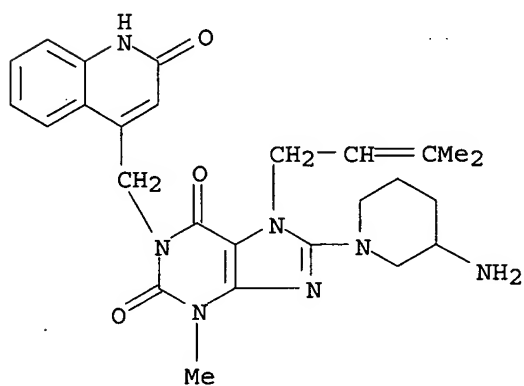
RN 454708-79-3 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)-1-[(5-nitro-1-isoquinolinyl)methyl]- (9CI) (CA INDEX NAME)

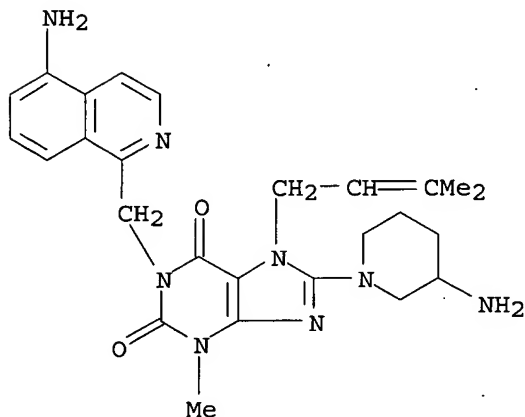


RN 454708-81-7 CAPLUS

CN 1H-Purine-2,6-dione, 8-(3-amino-1-piperidinyl)-1-[(1,2-dihydro-2-oxo-4-quinolinyl)methyl]-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)

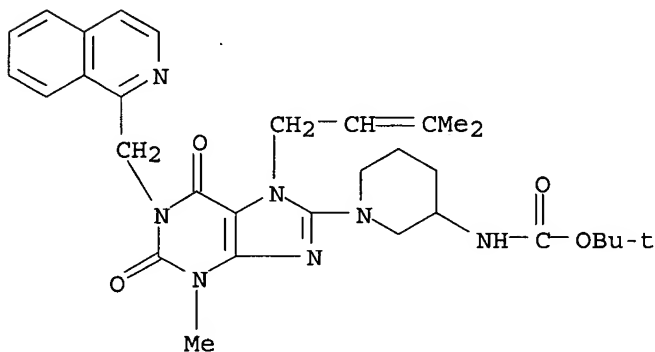


RN 454708-82-8 CAPLUS
 CN 1H-Purine-2,6-dione, 1-[(5-amino-1-isoquinolinyl)methyl]-8-(3-amino-1-piperidinyl)-3,7-dihydro-3-methyl-7-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



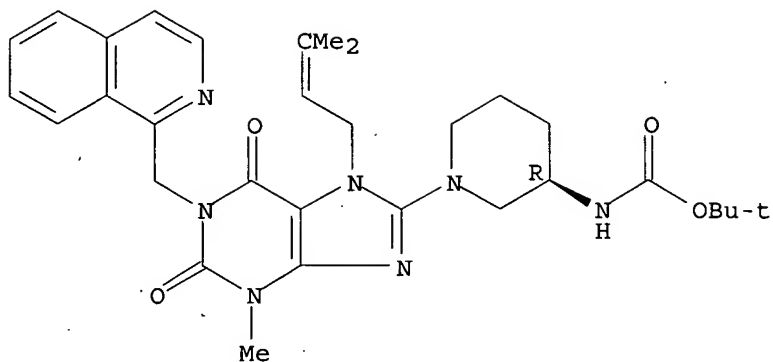
IT 454709-59-2P 454709-63-8P 454709-64-9P
 454709-70-7P 454709-71-8P 454709-77-4P
 454709-79-6P 454711-02-5P 454711-05-8P
 454711-14-9P 454711-15-0P 454712-88-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of xanthine derivs. as dipeptidylpeptidase-IV inhibitors)

RN 454709-59-2 CAPLUS
 CN Carbamic acid, [1-[2,3,6,7-tetrahydro-1-(1-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 454709-63-8 CAPLUS
 CN Carbamic acid, [(3R)-1-[2,3,6,7-tetrahydro-1-(1-isoquinolinylmethyl)-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

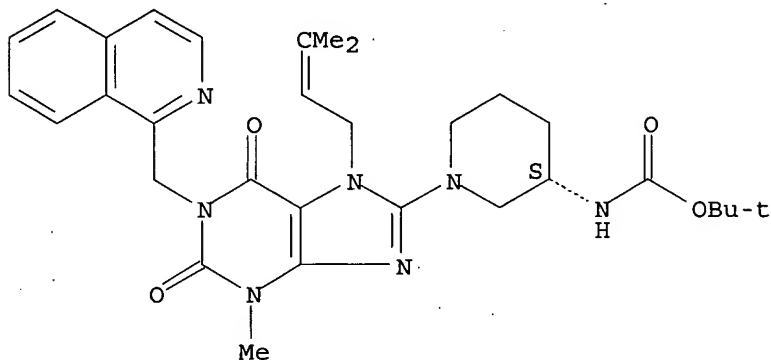
Absolute stereochemistry.



RN 454709-64-9 CAPLUS

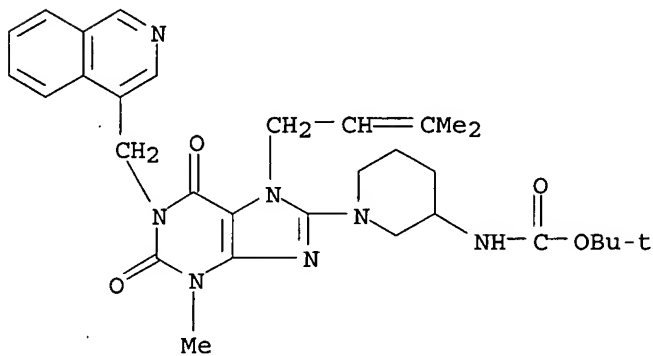
CN Carbamic acid, [(3S)-1-[2,3,6,7-tetrahydro-1-(1-isoquinolin-1-ylmethyl)-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



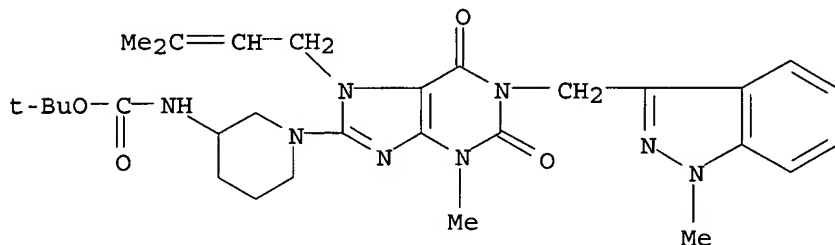
RN 454709-70-7 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-1-(4-isoquinolin-1-ylmethyl)-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



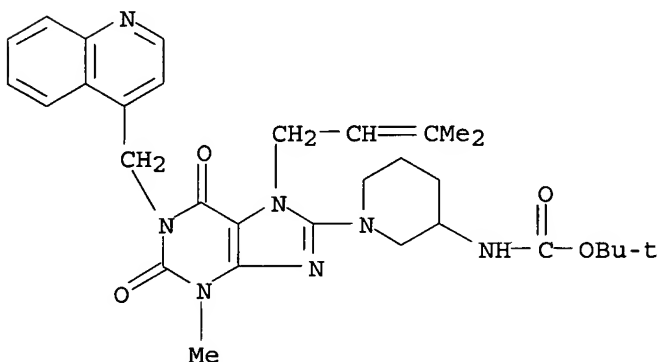
RN 454709-71-8 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-1-[(1-methyl-1H-indazol-3-yl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



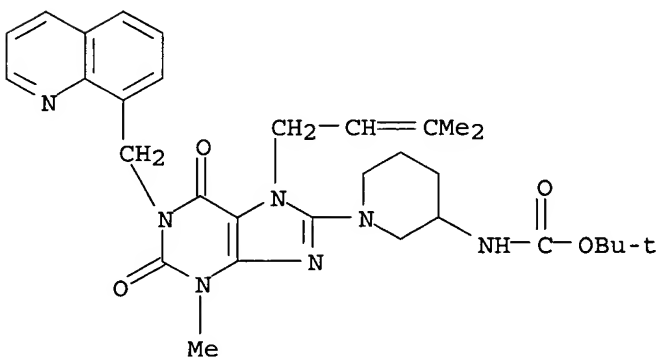
RN 454709-77-4 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1-(4-quinolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



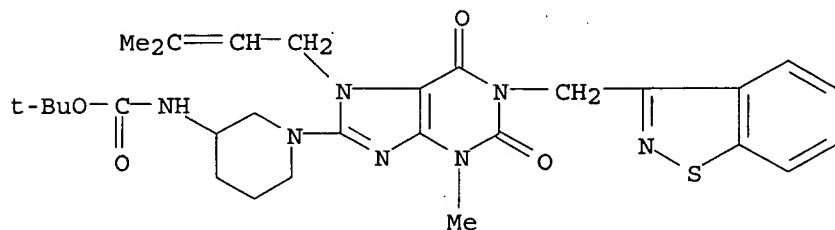
RN 454709-79-6 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1-(8-quinolinylmethyl)-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



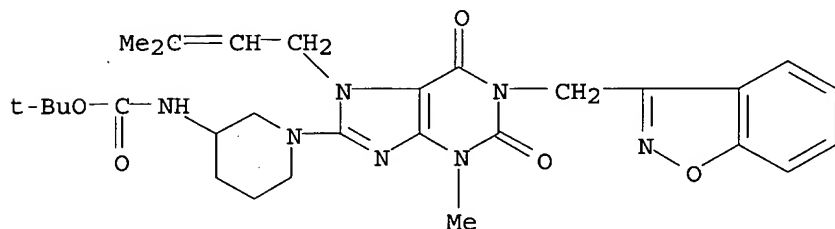
RN 454711-02-5 CAPLUS

CN Carbamic acid, [1-[1-(1,2-benzisothiazol-3-ylmethyl)-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



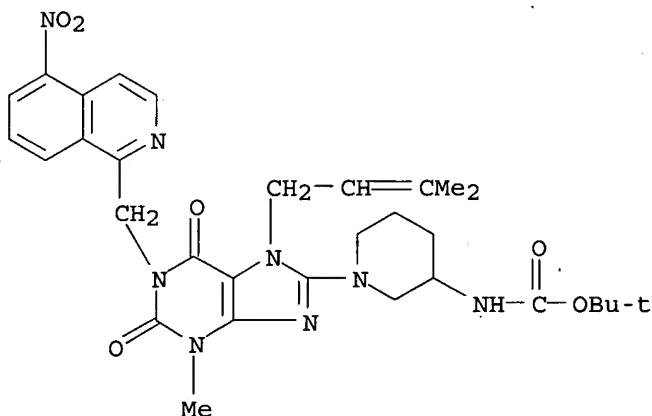
RN 454711-05-8 CAPLUS

CN Carbamic acid, [1-[1-(1,2-benzisoxazol-3-ylmethyl)-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



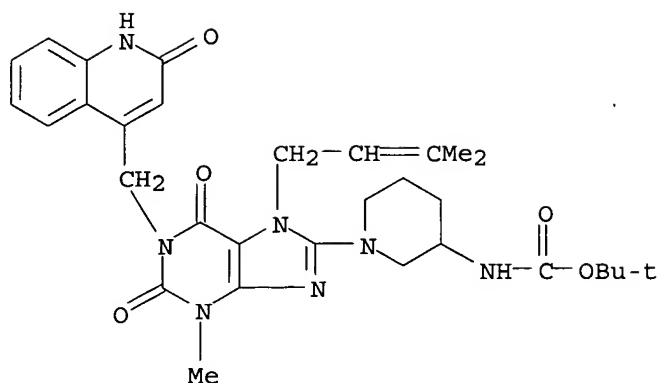
RN 454711-14-9 CAPLUS

CN Carbamic acid, [1-[2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-1-[(5-nitro-1-isoquinolinyl)methyl]-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



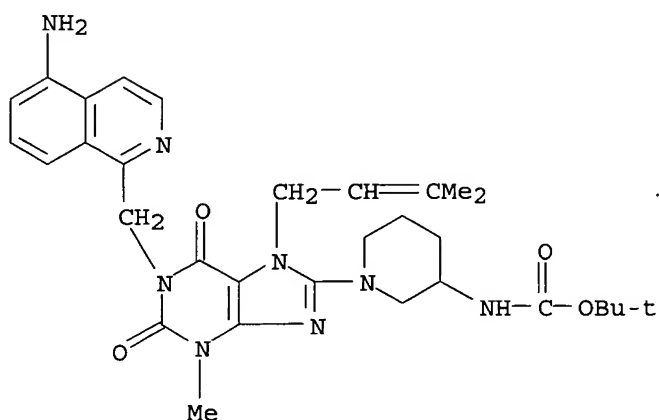
RN 454711-15-0 CAPLUS

CN Carbamic acid, [1-[1-[(1,2-dihydro-2-oxo-4-quinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 454712-88-0 CAPLUS

CN Carbamic acid, [1-[1-[(5-amino-1-isoquinolinyl)methyl]-2,3,6,7-tetrahydro-3-methyl-7-(3-methyl-2-butenyl)-2,6-dioxo-1H-purin-8-yl]-3-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1964:447891 CAPLUS

DOCUMENT NUMBER: 61:47891

ORIGINAL REFERENCE NO.: 61:8309b-h,8310a-c

TITLE: Purine derivatives. II. Bis theobromines

AUTHOR(S): Merz, K. W.; Graefe, G.

CORPORATE SOURCE: Univ. Freiburg, Germany

SOURCE: Arch. Pharm. (1964), 297(3), 146-57

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 61:47891

GI For diagram(s), see printed CA Issue.

AB The title compds. (Ia) were prepared by treating appropriately substituted theobromines, either in the form of their Ag, Na, or K salts, or in the presence of an alkali metal carbonate or hydroxide, with α,ω -dihalo aliphatic hydrocarbons in alc., aqueous alc., or

HCONMe₂ solution. Thus, a solution of 1.8 g. Br(CH₂)₂-Br in 20 ml. HCONMe₂ was added dropwise to a stirred suspension of 5.8 g. theobromine Ag salt in 100 ml. HCONMe₂ at 120°, the mixture heated 90 min., AgBr filtered off, and the filtrate kept overnight to yield I. Unless stated otherwise, the tabulated compds. were similarly prepared (in the table HCl/NaOH signifies precipitation from HCl with NaOH). To a refluxing solution of 2 g.

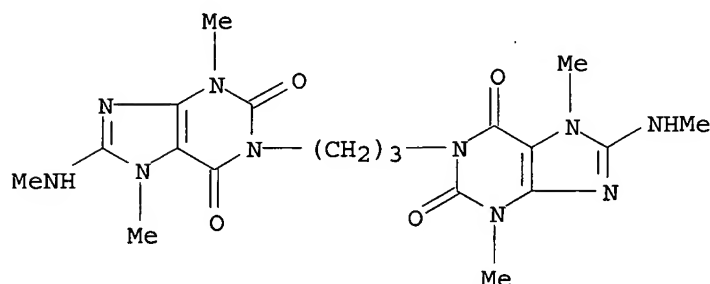
II in

50 ml. AcOH 0.8 g. Br was added dropwise over 1 hr. and the mixture cooled 24 hrs. to give V. VI was prepared by treating 2.5 g. the corresponding alc. with 30 g. HNO₃ at -10° and pouring the mixture after 30 min. into 10 vols. ice-H₂O. Similarly prepared was IX. VII, VIII, and XVIII were prepared from the corresponding alcs. by boiling with Ac₂O in the presence of NaOAc. X (2.8 g.) was heated with 25 ml. 33% MeNH₂ in 20 ml. iso-PrOH in a sealed tube 10 days at 190°, and the mixture cooled, filtered off, and washed (H₂O, iso-PrOH) to give XIII. Similarly prepared were XIV, XV, XVII, XIX, and XX. X (1.1 g.) was heated 1 hr. with 10 ml. morpholine in 10 ml. HCONMe₂ at 110°; after a clear solution was obtained, the mixture was cooled, and 30 ml. EtOH added, followed by Et₂O to give XVI. Similarly was obtained XXI. A suspension of 3.3 g. X with 3.5 g. NaSH in 80 ml. 80% iso-PrOH was refluxed 8 hrs. and kept overnight to give XXIII, which was dissolved in 400 ml. H₂O, the solution filtered, and the filtrate acidified to pH approx. 1 with 2N H₂SO₄ to give XXII. A solution of 0.15 g. XXII in 2N NaOH was neutralized with dilute H₂SO₄, treated with 50 ml. 50% iso-PrOH and 10 drops MeI, and the mixture warmed 10 min. on a water bath to give XXIV. Similarly prep'd was XXV. No, R, R₁, m.p., %, Yield, Solvent; I, H, (CH₂)₂, 360° (decomposition), 18, HCONMe₂; II, H, CH₂CH:CHCH₂-(trans), 298°, 47, AcOH; III, H, (CH₂)₃, 257-8°, 80, iso-PrOH; IV, H, CH₂CH(OH)CH(OH)CH₂, 340° (decomposition), 60, -H₂O, HCl/NaOH; V, , CH₂CHBrCHBrCH₂, 230° (decomposition), 82, AcOH; VI, H, CH₂CH(ONO₂)CH₂, 235°, 67, Dioxane; VII, H, CH₂CH(OAc)CH₂, 318°, 91, Ac₂O; VIII, H, CH₂CH(OAc)CH(OAc)CH₂, 280-1°, 75, Ac₂O; IX, H, CH₂CH(ONO₂)CH(ONO₂)CH₂, 260° (decomposition), 91, dilute HNO₃; X, Br, (CH₂)₃, >360°, 23, HCONMe₂; XI, Br, CH₂CH:CHCH₂, 350° (decomposition), 17.5, -, XII, Br, CH₂CH(OH)CH₂, 345° (decomposition), 50, HCl/NaOH; III, NHMe, (CH₂)₃, >320° (decomposition), 100, HCl/NaOH; XIV, NH₂Et, (CH₂)₃, >360° (decomposition), 100, -, XV, NHCH₂CH₂OH, (CH₂)₃, 356° (decomposition), 77.5, HCl/NaOH; XVI, Morpholino, (CH₂)₃, 283-4°, 88, EtOH; XVII, NHPr-iso, (CH₂)₃, 288-90°, 73, iso-PrOH; XVIII, Br, CH₂CH(OAc)CH₂, 268-70°, 77, Ac₂O; XIX, NH₂Et, CH₂CH(OH)CH₂, >350°, 70, HCl/NaOH; XX, NH(CH₂)₂OH, CH₂CH(OH)CH₂, 350° (decomposition), 90, HCl/NaOH; XXI, Morpholino, CH₂CH(OH)CH₂, 260°, 79, iso-PrOH; XXII, SH, (CH₂)₃, 340.vkappa. (decomposition), 80, NaOH/H₂SO₄; XXIII, SNa, (CH₂)₃, (hygroscopic), 330° (decomposition), -, -, XXIV, SMe, (CH₂)₃, 279-80°, 100, 100, EtOH; XXV, SEt, (CH₂)₃, 218-20°, 100, -, To a solution of 1 g. XXIII in 50 ml. 40% EtOH, 2% iodine solution was added till the color persisted, and the yellow precipitate, obtained instantaneously, filtered off and washed (H₂O, EtOH) to give 0.58 g. of a compound, m. 260° (decomposition), assigned the structure XXVI on the basis of its ultraviolet spectrum. A solution of 2 g. 1-(β-isonitrosopropyl)-theobromine in 250 ml. absolute EtOH was hydrogenated 2.5 hrs. over 0.5 g. Raney Ni at 60-100°/70 atmospheric and worked up to give 1.2 g. XXVII.HCl (R = CH₂CHMeNH₂, R' = H), m. 320° (decomposition) (EtOH). A mixture of 1.2 g. 8-bromotheobromine (XXVIII) in 10 ml. HN(CH₂CH₂OH)₂ was heated to 170°, cooled, diluted with an equal volume EtOH and 40 ml. Et₂O, and the mixture kept 1 day at room temperature to give 10-25% XXVII (R = H, R' = N(CH₂CH₂OH)₂, m. 180° (EtOH). XXVIII (1.2 g.) was dissolved in a mixture of 10 ml. morpholine and 5 ml. HCONMe₂ at 130°, kept 10 hrs. at 90-100°, cooled, solvent distilled in vacuo, and the yellowish oily residue treated with 30

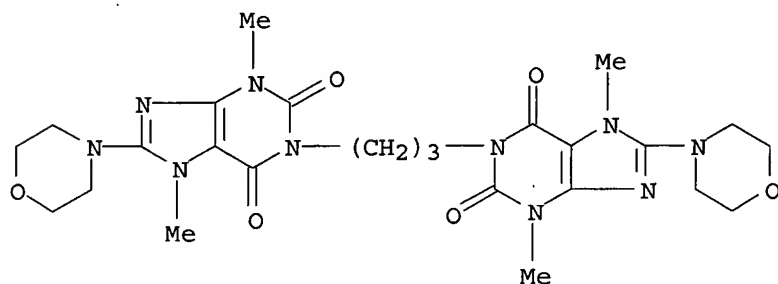
ml. absolute EtOH to give 0.75 g. XXVII (R = H, R' = morpholino), m. 270-1° (iso-PrOH). A boiling suspension of 10.4 g. XXVIII in 300 ml. iso-PrOH was treated with a solution of 10.8 g. Br(CH₂)₃Br in 10 ml. iso-PrOH and 100 ml. 4.5% NaOH. After 2 hrs. X was filtered off, the filtrate evaporated in vacuo, the residue extracted with Et₂O, the solvent evaporated, the residue suspended in H₂O at 40°, and the precipitate filtered off to give XXVII (R = (CH₂)₃Br, R' = Br) (XXIX), m. 137-8° (EtOH), and the aqueous filtrate extracted with Et₂O to give XXVII (R = (CH₂)₃OH, R' = Br) (XXX), m. 116-18° (H₂O). XXIX and XXX could also be prepared, in 50% yields by using 0.5 and 1.5 moles alkali, resp., in the preparation of X.

IT 99691-74-4, Theobromine, 1,1'-trimethylenebis[8-(methylamino)-
102032-22-4, Theobromine, 1,1'-trimethylenebis[8-morpholino-
102049-55-8, Theobromine, 1,1'-(2-hydroxytrimethylene)bis[8-morpholino-
105820-14-2, Theobromine, 1,1'-(2-hydroxytrimethylene)bis[8-(ethylamino)-
105841-94-9, Theobromine, 1,1'-trimethylenebis[8-(ethylamino)- 106197-85-7,
Theobromine, 1,1'-(2-hydroxytrimethylene)bis[8-[(2-hydroxyethyl)amino]-
106197-86-8, Theobromine, 1,1'-trimethylenebis[8-[(2-hydroxyethyl)amino]-
107542-81-4, Theobromine, 1,1'-trimethylenebis[8-(isopropylamino)-
(preparation of)

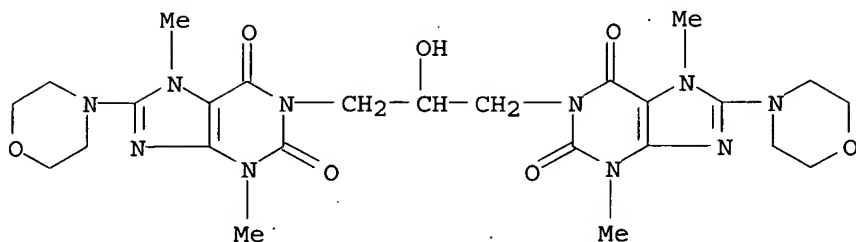
RN 99691-74-4 CAPLUS
CN Theobromine, 1,1'-trimethylenebis[8-(methylamino)- (7CI) (CA INDEX NAME)



RN 102032-22-4 CAPLUS
CN Theobromine, 1,1'-trimethylenebis[8-morpholino- (7CI) (CA INDEX NAME)

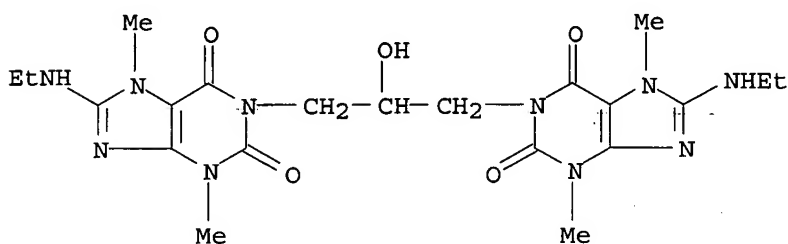


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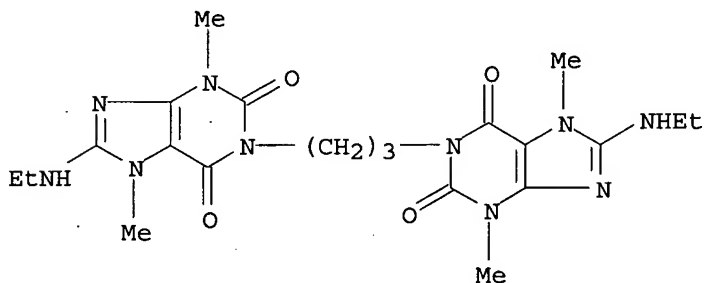
RN 105820-14-2 CAPLUS

CN Theobromine, 1,1'-(2-hydroxytrimethylene)bis[8-(ethlamino)- (7CI) (CA INDEX NAME)



RN 105841-94-9 CAPLUS

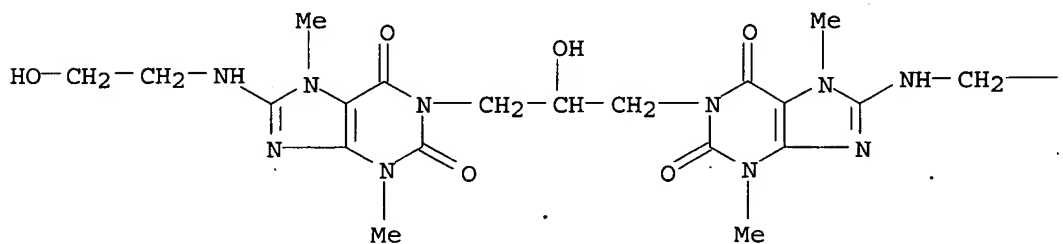
CN Theobromine, 1,1'-trimethylenebis[8-(ethylamino)- (7CI) (CA INDEX NAME)



RN 106197-85-7 CAPLUS

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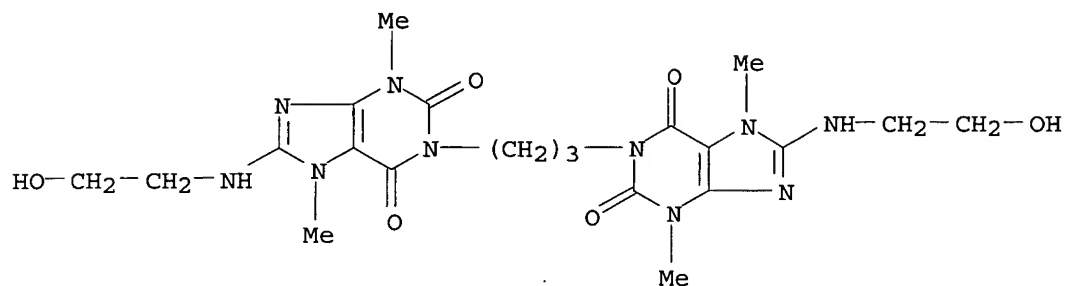
PAGE 1-A



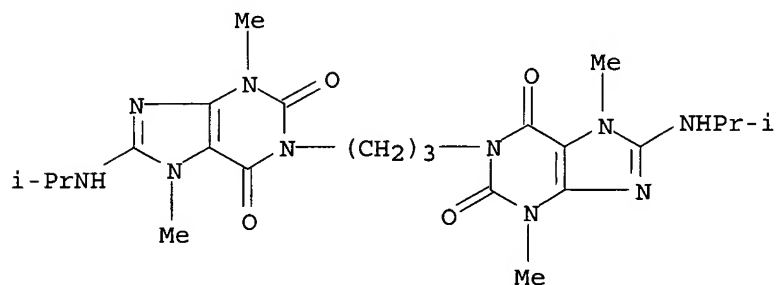
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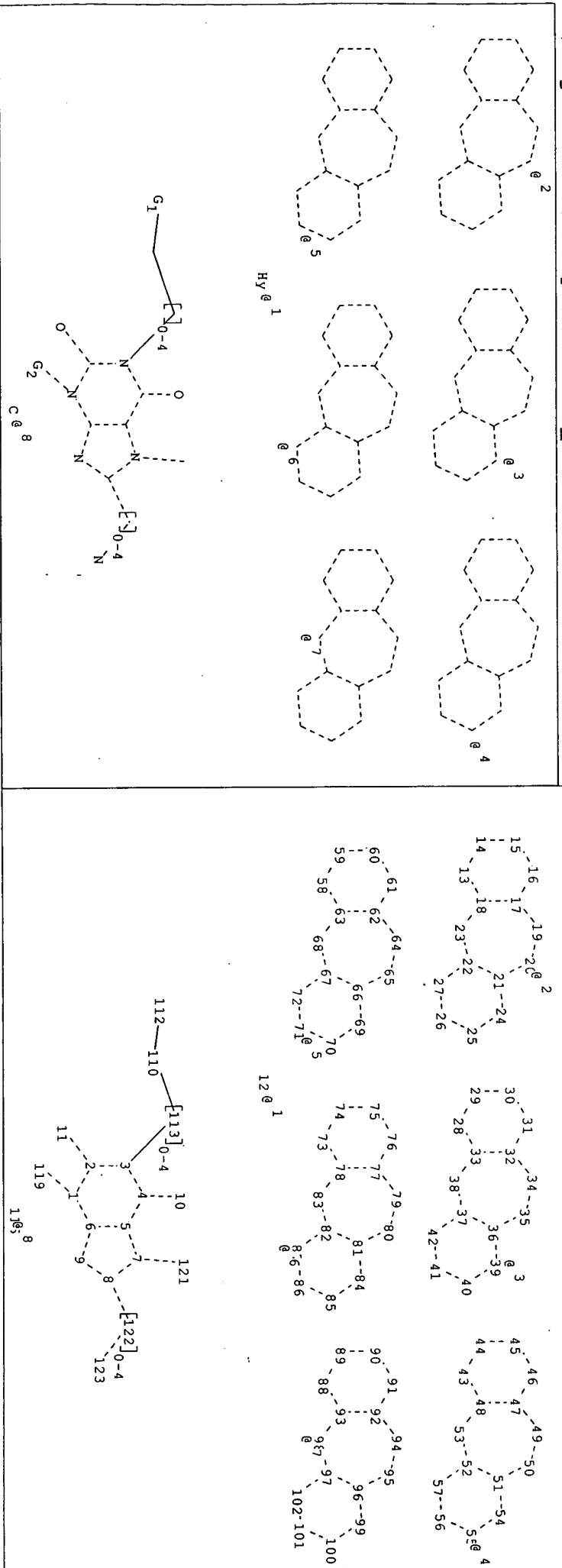
—CH₂—OH

RN 106197-86-8 CAPLUS
 CN Theobromine, 1,1'-trimethylenebis[8-[(2-hydroxyethyl)amino] - (7CI) (CA INDEX NAME)



RN 107542-81-4 CAPLUS
 CN Theobromine, 1,1'-trimethylenebis[8-(isopropylamino) - (7CI) (CA INDEX NAME)





chain nodes :

10 11 12 110 112 113

ring nodes :

1 2 3 4 5 6 7 8 9 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65
 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95
 96 97 98 99 100 101 102

ring/chain nodes :

116 119 121 122 123

chain bonds :

2-11 3-113 4-10 110-112 110-113

ring/chain bonds :

1-119 7-121 8-122 122-123

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 13-14 13-18 14-15 15-16 16-17 17-18 17-19 18-23 19-20 20-21
 21-22 21-24 22-23 22-27 24-25 25-26 26-27 28-29 28-33 29-30 30-31 31-32 32-33 32-34 33-38 34-35 35-36
 36-37 36-39 37-38 37-42 39-40 40-41 41-42 43-44 43-48 44-45 45-46 46-47 47-48 47-49 48-53 49-50 50-51
 51-52 51-54 52-53 52-57 54-55 55-56 56-57 58-59 58-63 59-60 60-61 61-62 62-63 62-64 63-68 64-65 65-66
 66-67 66-69 67-68 67-72 69-70 70-71 71-72 73-74 73-78 74-75 75-76 76-77 77-78 77-79 78-83 79-80 80-81
 81-82 81-84 82-83 82-87 84-85 85-86 86-87 88-89 88-93 89-90 90-91 91-92 92-93 92-94 93-98 94-95 95-96
 96-97

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96-99 97-98 97-102 99-100 100-101 101-102

exact/norm bonds :

1-2 1-6 1-119 2-3 2-11 3-4 3-113 4-5 4-10 5-6 5-7 6-9 7-8 7-121 8-9 8-122 13-14 13-18 14-15 15-16
16-17 17-18 17-19 18-23 19-20 20-21 21-22 21-24 22-23 22-27 24-25 25-26 26-27 28-29 28-33 29-30 30-31
31-32 32-33 32-34 33-38 34-35 35-36 36-37 36-39 37-38 37-42 39-40 40-41 41-42 43-44 43-48 44-45 45-46
46-47 47-48 47-49 48-53 49-50 50-51 51-52 51-54 52-53 52-57 54-55 55-56 56-57 58-59 58-63 59-60 60-61
61-62 62-63 62-64 63-68 64-65 65-66 66-67 66-69 67-68 67-72 69-70 70-71 71-72 73-74 73-78 74-75 75-76
76-77 77-78 77-79 78-83 79-80 80-81 81-82 81-84 82-83 82-87 84-85 85-86 86-87 88-89 88-93 89-90 90-91
91-92 92-93 92-94 93-98 94-95 95-96 96-97 96-99 97-98 97-102 99-100 100-101 101-102 110-112 110-113
122-123

G1:[*1],[*2],[*3],[*4],[*5],[*6],[*7]

G2:H,[*8]

Connectivity :

2:3 E exact RC ring/chain 4:3 E exact RC ring/chain 10:1 E exact RC ring/chain 11:1 E exact RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:CLASS 12:Atom 13:Atom 14:Atom
15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom
28:Atom 29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom
41:Atom 42:Atom 43:Atom 44:Atom 45:Atom 46:Atom 47:Atom 48:Atom 49:Atom 50:Atom 51:Atom 52:Atom 53:Atom
54:Atom 55:Atom 56:Atom 57:Atom 58:Atom 59:Atom 60:Atom 61:Atom 62:Atom 63:Atom 64:Atom 65:Atom 66:Atom
67:Atom 68:Atom 69:Atom 70:Atom 71:Atom 72:Atom 73:Atom 74:Atom 75:Atom 76:Atom 77:Atom 78:Atom 79:Atom
80:Atom 81:Atom 82:Atom 83:Atom 84:Atom 85:Atom 86:Atom 87:Atom 88:Atom 89:Atom 90:Atom 91:Atom 92:Atom
93:Atom 94:Atom 95:Atom 96:Atom 97:Atom 98:Atom 99:Atom 100:Atom 101:Atom 102:Atom 110:CLASS 112:CLASS
113:CLASS 116:CLASS 119:CLASS 121:CLASS 122:CLASS 123:CLASS

Generic attributes :

12:

Type of Ring System : Polycyclic

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